BRITISH ASSOCIATION OF CHARTERED PHYSIOTHERAPISTS IN LIMB ABSENCE REHABILITATION

SPRING 2022 **ISSUE 57**

CONTENTS

NEW OPPORTUNITIES

Julia Earle

BACPAR Chair

Clinical Specialist Physiotherapist in Amputee Rehabilitation

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Retiring Chair's Message – Spring 2022

Following our Exec meeting in March we welcomed Lou Tisdale back into the role of Chair of BACPAR as I have reached the end of my 2 terms. Lou very kindly offered to step into the role for 1 year, as there were no offers from the current exec members to volunteer for the post at present, with the hope that some one may feel able to step into the role by next March. As Lou was Chair prior to me we know that the post is in extremely capable hands and would like to thank her very much for making this offer.

As you may have noticed from the front cover of the Journal the name of BACPAR has changed, as agreed at the AGM, to be more inclusive and cover our role within "Limb Absence" rehabilitation rather than "amputee". We are still in the process of updating the website header and other information.

We had a very productive exec meeting with reports from the various officers and regional reps and lots of discussion around the work being done with the CSP on the Equality, Diversity and Belonging Project, on which Lou and Lynsey have been representing BACPAR. Conference planning for our next collaboration with the Vascular Societies is underway (please do get in touch with us if you have any ideas and suggestions for speakers) and updating of the BACPAR Student guidelines, the 'So Your Patient Has Had An Amputation' leaflet and the executive committee and regional reps handbooks. If you would like to join us at one of the exec meetings (in person or virtually) to see what goes on, please do let us know – you would be very welcome. It was lovely to have some of our new executive officers and regional reps at our recent meeting with all their fresh ideas and enthusiasm.

As always, I would like to say a massive thank you to all the Exec and BACPAR members for all their hard work on behalf of their patients and teams and wish Lou all the best in her "new" role as Chair. I will be continuing as Vice Chair to support Lou.

Julia Earle

And a short time before the exec meeting, Julia recorded her reflections on her time as BACPAR Chair *See Page 8 [Editors].*

WELCOME

EDITORIAL

Many thanks to all contributors who have provided the journal with a range of topics to interest, motivate and support our practice.

The journal evolves a little with each edition. Some aspects are becoming embedded, for example personal profiles of members and users. Let us know about innovations and new roles within your service – it doesn't have to be Physiotherapy specific. We all have patients who inspire us every day; we'd love to hear their stories be it their experience of rehab or how their lives have changed following limb loss.

Another regular feature is charitable work. Last year Limbpower gave us an overview of their work, accompanied by an example of one of their activities from the perspective of a Physiotherapist; this Spring they share their work with Moving Medicine. SwissLimbs supports prosthetics and orthotics, mostly in Africa and the Middle East. And the Limbless Association describes their valuable volunteer visitor service. All fantastic resources for our patients and ourselves whether we're working in the UK or overseas.

Reviews and reflections are recurring contributions. If there's one particular theme running through this edition it's around what members and some of our MDT colleagues have learned through conferences and courses, undertaking research, developing roles, services and learning opportunities, and from clinical practice.

Examples of practice presented at BACPAR's conference with the Vascular Societies in 2021 and directly from clinical practice are shared.

And there's more...including news updates from around the country and new committee members. Dive in, read and enjoy!

As editors we believe that you the reader values this variety. We've received some feedback to confirm this – from those experienced in the field to students. Please continue to let us know what you like and why. But also, what else you might like to read about. This will really help motivate us as editors to reach out to source content so we can give you a journal you really value and to support your personal and professional development.

Best wishes,

Mary Jane, Sue and Sally Finlay (who has shadowed and supported this role, thank you Sally) Joint Journal Officers **bacparjournal@gmail.com**

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GUIDANCE FOR SUBMITTING CONTENT FOR THE BACPAR JOURNAL

DEADLINES for the biannual Journals (Spring and Autumn) will be announced via iCSP, the BACPAR website and our 'BACPAR Members Only' Facebook page.

CONTACT the Joint Journal Officers Mary Jane Cole and Sue Lein via email: **bacparjournal@gmail.com**

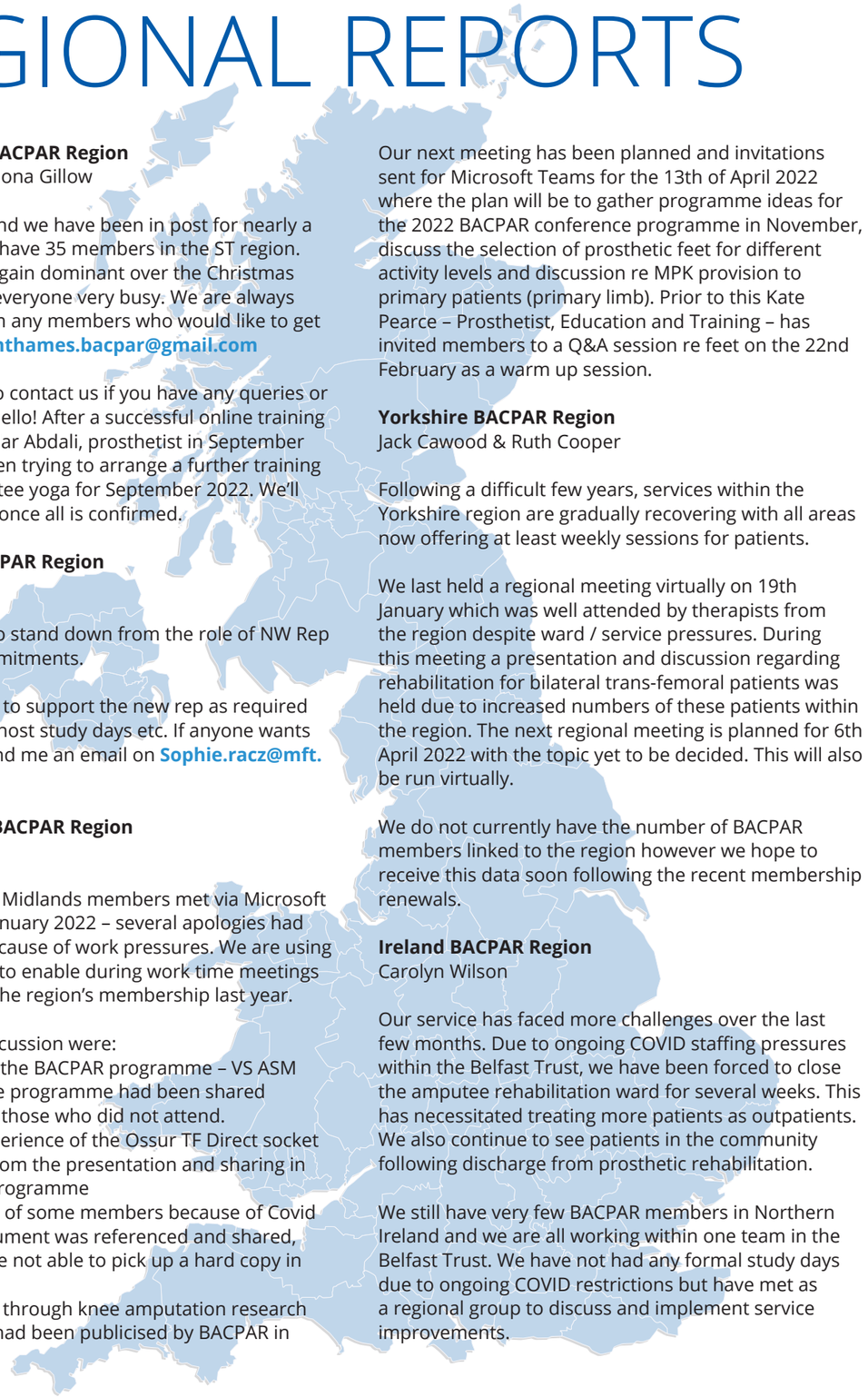
WORD COUNT The approximate word for major articles is 2000 or 1500 words if you have the addition of figures and/or tables, photos and references.

PICTURES should be supplied as high resolution (240ppi) jpegs or PDFs as images. They should be emailed as separate files, ideally not already embedded in your text.

INCLUDE YOUR NAME (AND ANY CO-AUTHORS) AND WORK SETTING AT THE TOP OF YOUR ARTICLE, AFTER THE TITLE.

TO ACCOMPANY YOUR SUBMISSION you will need to supply completed Submission and Image Consent Forms (as applicable).

REGIONAL REPORTS



South Thames BACPAR Region
Sally Finlay and Fiona Gillow

Time has flown and we have been in post for nearly a year already! We have 35 members in the ST region. Covid was once again dominant over the Christmas period and kept everyone very busy. We are always keen to hear from any members who would like to get in touch at: **souththames.bacpar@gmail.com**

Please feel free to contact us if you have any queries or just want to say hello! After a successful online training session with Haidar Abdali, prosthetist in September 2021 we have been trying to arrange a further training session on amputee yoga for September 2022. We'll keep you posted once all is confirmed.

North-West BACPAR Region
Sophie Racz

I will be looking to stand down from the role of NW Rep due to work commitments.

I would be happy to support the new rep as required initially and help host study days etc. If anyone wants to contact me send me an email on **Sophie.racz@mft.nhs.uk**

West Midlands BACPAR Region
Lou Tisdale

Six BACPAR West Midlands members met via Microsoft Teams on 12th January 2022 – several apologies had been received because of work pressures. We are using Microsoft Teams to enable during work time meetings as requested by the region's membership last year.

The topics for discussion were:

- learning from the BACPAR programme – VS ASM Dec 2021 – the programme had been shared previously for those who did not attend.
- members' experience of the Ossur TF Direct socket to follow on from the presentation and sharing in the BACPAR programme
- redeployment of some members because of Covid
- the POVs document was referenced and shared, again for those not able to pick up a hard copy in the ASM
- sharing re the through knee amputation research meeting that had been publicised by BACPAR in January.

Our next meeting has been planned and invitations sent for Microsoft Teams for the 13th of April 2022 where the plan will be to gather programme ideas for the 2022 BACPAR conference programme in November, discuss the selection of prosthetic feet for different activity levels and discussion re MPK provision to primary patients (primary limb). Prior to this Kate Pearce – Prosthetist, Education and Training – has invited members to a Q&A session re feet on the 22nd February as a warm up session.

Yorkshire BACPAR Region
Jack Cawood & Ruth Cooper

Following a difficult few years, services within the Yorkshire region are gradually recovering with all areas now offering at least weekly sessions for patients.

We last held a regional meeting virtually on 19th January which was well attended by therapists from the region despite ward / service pressures. During this meeting a presentation and discussion regarding rehabilitation for bilateral trans-femoral patients was held due to increased numbers of these patients within the region. The next regional meeting is planned for 6th April 2022 with the topic yet to be decided. This will also be run virtually.

We do not currently have the number of BACPAR members linked to the region however we hope to receive this data soon following the recent membership renewals.

Ireland BACPAR Region
Carolyn Wilson

Our service has faced more challenges over the last few months. Due to ongoing COVID staffing pressures within the Belfast Trust, we have been forced to close the amputee rehabilitation ward for several weeks. This has necessitated treating more patients as outpatients. We also continue to see patients in the community following discharge from prosthetic rehabilitation.

We still have very few BACPAR members in Northern Ireland and we are all working within one team in the Belfast Trust. We have not had any formal study days due to ongoing COVID restrictions but have met as a regional group to discuss and implement service improvements.

East Anglia BACPAR Region
Jess Withpetersen

In East Anglia we are slowly opening up services and trying to return to 'normal' within the confines of reduced room capacity and staff sickness.

We are meeting virtually on the 28th March to share learning and to continue to act as a support for us all.

We remain a large geographical area with a small number of members so we may continue to meet virtually if this suits our members.

LETTERS TO THE EDITORS

We received this student's-eye view from their current placement in prosthetic rehabilitation. We wish Zoe well in her studies and hope to see her in BACPAR's ranks in the future! And well done to the Seabrook team for providing this positive opportunity to a student so early in their career. EDITORS

I became interested in working with amputees following the creation of the Invictus Games in 2014. After researching job opportunities and relevant university courses, I applied for and completed an undergraduate degree in Sports Rehabilitation, graduating in 2019. To further my education I applied for a Masters in Physiotherapy. Now in my second year, my first clinical placement (March 2022) is working with the prosthetic physiotherapists at Seacroft Hospital in Leeds.

Through this placement I have experienced working with amputees who are in different stages of their rehabilitation, meeting individuals who are only a few days post amputation to established limb wearers. It has been incredible to see the progression of individuals over a few short weeks. The elation felt by individuals standing and walking again for the first time in months is infectious and rewarding, however, the reality of how different and demanding being a prosthetic user is, can be overwhelming. It is important when working with these individuals to listen to what they have to say, providing as much information and support as they need to prepare themselves for the rest of their life.

Being part of the team for a few weeks has been fantastic, hearing about people whose lives have changed as a result of the care they received at Seacroft.

Zoe Searson, MSc Physiotherapy (pre-registration) student at Leeds Beckett University.

I really enjoyed reading the article by Fiona Leggett, Researcher in Health Psychology, in the Autumn 2021 BABPAR Journal, as well as hearing her interesting talk at the fantastic BACPAR Conference in December 2021.

This article really resonated with me. I could clearly picture patients who would fit into each narrative and understand how valuable the recourses created would be to all of the individuals who went through the service. Being able to explain the potential journey they may undertake in a format that is easy to understand is a very valuable resource.

Following this article and presentation, I have discussed these narratives with my outpatient amputee physiotherapy colleague and we are keen to make use of them narratives to support our patients journeys.

I will also be sharing what I have learnt with my in-patient physiotherapy colleagues to support their early discussions on potential outcomes following a major lower limb amputation, facilitating their honest conversations about realistic goals.

Jess Withpetersen
East Anglia Regional Rep

Feedback on the journal

The BACPAR journal is a great source of information and inspiration! … Better than Good Housekeeping these days!

Carolyn Wilson

WHAT AN INTERESTING SIX YEARS

Julia Earle, Chair of BACPAR

Back in 2016 I became Chair of BACPAR, initially just for three years. This wasn't something I had really considered doing before, having held various roles within the exec including South Thames Regional Rep, Membership Secretary and Public Relations Officer, but I think I must have been cajoled by a couple of other exec members and made eye contact with Lou, the retiring Chair, at the wrong moment. I have always loved being part of the exec but didn't dream I would enjoy the Chair role as much as I have.

There have been so many opportunities over my two terms to be involved in aspects of amputee rehab that were new to me and took me way out of my comfort zone of day-to-day amputee rehab. I have especially valued the opportunities to collaborate with other organisations such as International Society of Prosthetics and Orthotics (ISPO), the Vascular Societies of Great Britain and Ireland, NHS England, and the Chartered Society of Physiotherapy (CSP) and its other Professional Networks. Recently Covid has provided even more opportunities to work with the CSP in developing policies, feeding back to the CSP about member's challenges concerning services and also advising the CSP for their role on the Community Rehab Alliance.

Working in the role has built my self-confidence, stretched my communication skills both in person and in writing, forced me to improve my time management and prioritisation of tasks and decision making. I have had to look at the wider picture of rehabilitation, NHS and the wider world's issues relating to amputee rehab. I hope my chairing skills have also improved and now enjoy chairing exec meetings, AGM's and even sessions at conference, although that has taken a while!

One of the joys of being Chair recently has been that I was able to take part in the website development along with Hayley Crane and Adam Sayed. This was not strictly the Chair's role but having been involved in some of the initial meetings this was one job I did not want to delegate. It is again a whole new experience for me but was very satisfying as I quite enjoy a spreadsheet, a list of jobs and project management I suppose you would call it on a CV.

I hope that whoever takes over the role from me at this exec (I am writing this a few days before so don't know who the lucky person will be) will find it as exciting, challenging, interesting, and rewarding as I have.

A few pointers, if needed:

1. You don't have to know everything – I found that having as much info to hand as possible was the key for meetings, and there is always the enormous knowledge pool of the rest of the exec ready to help.

2. You don't have to do everything, delegate to others on the exec appropriate to their roles, something I still struggle with as I'm a bit of a control freak.

3. Don't be daunted by the collaboration with other organisations; they are only too pleased to have BACPAR's input, and you can ease your way in as you develop into the role. There are always other exec members to give you support.

4. Make it your own – I took over from a whole line of Chairs who had all done an amazing job and I was completely daunted by this, but we are all different and all bring our own personality and skills to the role.

BACPAR is a dynamic, enthusiastic and powerful group of amputee enthusiasts with many creative ideas around how the network should continue to develop. I anticipate there will continue to be an increasing focus on education, support of members in the UK and internationally and in encouraging research, and I look forward to being part of this and in supporting the new Chair.

SUMMARY OF BACPAR'S AGM 2021

Julia Earle, Chair of BACPAR

This year's AGM was held 'in person' on Wednesday 1st December at the BACPAR conference.

The full AGM minutes can be found on the BACPAR website **https://www.bacpar.org/data/Resource_Downloads/2021AGMminutes01.12.21.pdf**

40 members were present and apologies were received from 12 members.

The previous minutes were agreed as a true record

Matters Arising: were all included in the Chairs Report.

Sue Lein presented the Treasurer's Report remotely – it had been a quiet year due to Covid and BACPAR continues to be in a healthy position financially. The main spend this year has been for the new website development. No bursaries had been awarded and the money had been rolled over to the current year.

An extensive list of BACPARs achievements against our work plan is included in the full AGM minutes but a few of the highlights were mentioned in the Chair's Report:

- Website has been developed over the last year and went live in July 2021, reminder to log in and update personal info including addresses and communication preferences
- Journal – No difference to cost therefore have all been posted. If you didn't receive one then potentially have not updated details on the website. Review communication preferences.
- Regions have continued despite challenging times via individual support, zoom meetings and online training. There had been various changes to the regional reps.
- Guidelines – Lots of work ongoing in this area.
  - The team would very much like to hear feedback on how they are being used and also any reports of any audits undertaken against them – helps with NICE recognition. (presentations at conference this year)
  - Looking into the possibility of linking with an independent organisation to formalise our approach to research appraisal, control the quality of data and advise on critical appraisal
  - SPARG PPAM Aid Guidelines to be presented at conference
- Vascular societies of Great Britain and Ireland – BACPAR have representation on council and opportunities with representatives on the Research Committee, Vascular Societies new Journal, Peripheral Vascular Disease and Amputation Special Interest Group and opportunity to input into Provision of Services for People with Vascular Disease 2021 document
- Humanity and Inclusion – an information source for UL and LL amputees which will be available world wide though HI – yet to be published but once it is, BACPAR will be able to access

SPARG Report was presented

Questions asked of the BACPAR Membership during the 2021 AGM

1. Do we want to change BACPAR's name to 'British Association of Chartered Physiotherapists in Amputation Rehabilitation' ? Discussion was had as to the reasons for this.

   Majority vote in favour to change to "British Association of Chartered Physiotherapists in Limb Absence Rehabilitation"

2. Are we keen to continue to hold our annual conference in partnership with the Vascular Societies or have a stand-alone event?

   Majority vote in favour of partnership conference 2022 – to remain a yearly discussion at AGM.

Elections

Sally Finlay to join the Journal Officers

Education Officer – Grace Ferguson to join Kim Fairer

Vice Guideline Coordinator – Kate Lancaster

Research Officers – Miranda Asher and Lauren Young

Social Media Officer – Gemma Boam

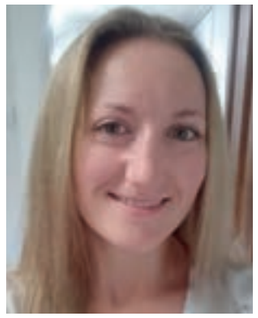
Secretary – Wendy Leonard

Thanks were expressed to all those stepping down from Committee posts this year.

There was no other business apart from a thank you to everyone who has been working on BACPAR's behalf at a local or national level, as an enthusiastic member or as part of a committee or working group.

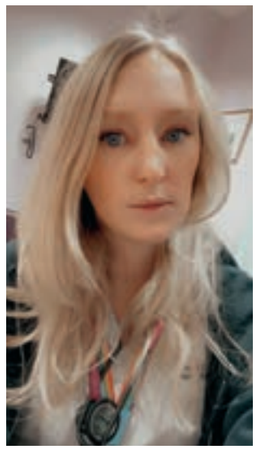
AN INTRODUCTION TO OUR NEW OFFICERS AND REGIONAL REPRESENTATIVES

EDUCATION OFFICER (JOINT) – Grace Fergusson



Grace has been working as a Physiotherapist in the NHS since 2013. She has always had a passion for rehabilitating those with an amputation or limb absence; and currently works at WestMARC, the largest limb-fitting centre in Scotland. At present Grace is developing her role in the upper limb prosthetic service and is collaborating with prosthetists and OTs to ensure users of multi articulating hands and other devices are optimising their function and posture. As a dynamic member of the team Grace has brought her love and knowledge of Pilates into the prosthetic service and completed all 3 levels of the APPI Pilates Course and has embedded this work into her daily treatments. She not only teaches better posture to the patients, but also the staff.

EDUCATION OFFICER (JOINT) – Kimberley Fairer



Kimberley qualified in 2015 and started her career working in Torbay & South Devon NHS Foundation Trust. In 2017, she moved to the John Radcliffe, Oxford University Hospitals, where she is now the Team Lead Physiotherapist for Vascular & Emergency Surgery. She is also currently undertaking an MSc in Amputation & Prosthetic rehabilitation at the University of Southampton.

Kimberley has previously been a CSP steward and has an interest in research, development and education of students and colleagues, mostly in all things vascular, pre-habilitation, health education & prevention. The main focus of her work and development is in acute vascular surgery, including developing wider roles of therapists in the MDT.

VICE GUIDELINES CO-ORDINATOR – Kate Lancaster

Kate qualified from Southampton University in 2002 and has worked in amputee rehabilitation at Queen Mary's Hospital since 2009. Kate loves working with her patients through their prosthetic journey and has developed a special interest in phantom limb pain treatment and management. She is also the lead physiotherapist for upper limb amputee patients working closely with the OT, psychologist and prosthetists and is currently helping in the development of an international upper limb guidelines document. It was due to this involvement with these guidelines, that she put her hand up to join the committee as the Vice Guidelines Coordinator.

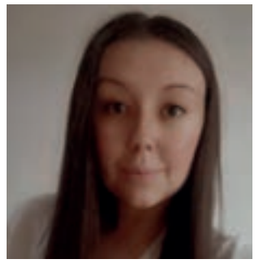
RESEARCH OFFICER (JOINT) – Miranda Asher

Miranda's first work with people with amputation was in Mexico at a community clinic in Merida during 2004, sparking a passion for this field of rehabilitation. Since then, Miranda has worked in a number of countries, including NHS clinics in the UK.

An enthusiasm for evidence-based practice led to a MSc in Biomedical engineering at Strathclyde University and work with Ottobock EU as they developed their client care 'sail' (sector). Returning to the UK allowed the completion of a PhD in increasing physical activity levels of people with amputation. Miranda now works privately and closely supports a number of "limb-difference" charities facilitating further patient-lead research in the field.

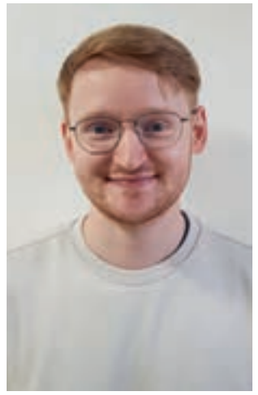
SOCIAL MEDIA – Gemma Boam

Gemma graduated in 2016 from Nottingham Trent University with a BSc Hons Sport and Exercise Science. In 2017, she completed her masters (MRes) in Sport



and Exercise Science, with her project investigating the biomechanics of sit-to-stand, stair climbing and limits of stability when using an ankle-foot orthosis, simulating a transtibial amputation. The following year in 2018, Gemma began her PhD in surgical and rehabilitation outcomes following through-knee versus above-knee amputations at Hull York Medical School. Additionally in 2018, Gemma commenced her service within the NHS as a physiotherapy assistant at Hull.

TRENT REGIONAL REP – Peter Robinson



Peter Robinson has recently taken over the role as the Trent Regional Rep. He currently works as a Physiotherapist in the vascular team for Doncaster & Bassetlaw Teaching Hospitals. He first took an interest in working with individuals with limb absence as a student and was fortunate enough to attend his first BACPAR conference as a student member back in 2015.

Peter tells us he is a Christian, runner/squash player and a (fairly) newly appointed husband.

Peter says he has learnt a lot from various BACPAR members and through the wider network and publications over the years and is very excited to be taking on this role and contributing to the great work that BACPAR does.

E-mail: **bacpar.trent@gmail.com / peter.robinson11@nhs.net**

WALES REGIONAL REP – Charlie Crocker

Hello, I'm Charlie and I've just become the rep for Wales!

I am the Clinical Lead Physiotherapist for the Outpatient Amputee Service in Swansea Bay University Health Board based at Morriston Hospital, Swansea. It is a regional service that covers the South-West of Wales from west Bridgend to Milford Haven up towards Aberystwyth. Geographically a huge area but low on population and for some reason the majority of my current patient load are travelling from this furthest part of Wales! Our current patient number is about 1300. The service consists of myself and a rotational Band 6.

I started life as a qualified landfill manager and then retrained in my first love of Physiotherapy as a mature student in Cardiff in 2005. I left Cardiff with my certificate in one hand and a baby ready to pop! I joined Swansea NHS Trust in the November 2005 where I completed 5 years of Band 5 rotations and 5 years of Band 6 rotations (all part-time). As a Band 6, I spent a lot of my rotations bouncing between orthopaedics and medical wards and specialised in elective hip and knee replacements for 2 years. This gave me the chance to manage complex and challenging patients independently which really set me in good stead for working with amputees.

In 2016, the opportunity arose as the Clinical Lead in the amputee outpatient rehab unit. Clinical Lead is a grand title but not that long ago there used to be 4 qualified staff and 2 techs. The joy of budget management has seriously affected our service: this is something I am working hard to rectify but funding is difficult to secure. On the positive side, in light of the new MPK policy, I am pleased to say that Swansea, Wrexham and Cardiff centres have all secured Specialised Physiotherapists for their service which is amazing news for the patients.

On a personal level, I have 2 teenage daughters who provide their own challenges and rewards, and a hound called Hoover.

NORTH THAMES REGIONAL REP – Eve McQuade

Eve graduated from University of Brighton 2011 developing a keen interest in amputee rehabilitation when working for Barts Health NHS Trust in 2014 within a vascular centre with a small outpatient prosthetic service. In 2016 Eve took a role at The Royal London Hospital working with both vascular and traumatic amputees in the acute and outpatient setting. To widen her knowledge of amputee rehabilitation Eve began working at The Royal National Orthopaedic Hospital in 2018 with adults and children who have acquired upper and lower amputation due to Sarcoma, bone infection or limb absence from pre-operative stage through to acute care, prosthetic provision and rehabilitation.

MOBILITY TO RESTORE HOPE

Inclusion of people with amputations in development cooperation projects

Living with a physical disability should not prevent a person from leading an active and productive life, full of personal dreams and accomplishments. Restoring mobility and at the same time eliminating the social stigma that often afflicts people with disabilities are the goals of SwissLimbs, a Swiss-Italian non-governmental organization active in the rehabilitation of amputees in the South of the world.

SwissLimbs: "We believe that mobility is a basic human right that should be accessible to everyone everywhere"

SwissLimbs is a Swiss-Italian NGO, founded in 2016, that brings a global solution for all persons with disabilities, who do not have adequate access to healthcare and orthopedic rehabilitation services. SwissLimbs offers technological innovations with affordable and high-mobility rehabilitation for developing countries with a 3-pronged approach: 1) the training of rehabilitation professionals; 2) the provision of infrastructure; 3) the supply of much needed orthopedic materials. To date, SwissLimbs is the only NGO that provides such a holistic approach to comprehensive physical rehabilitation in developing nations.

SwissLimbs is committed to train rehabilitation professionals, such as orthopedic technicians and physiotherapists, in its project countries, in cooperation with local organizations and national health services. SwissLimbs also rehabilitates or sets up orthopedic rehabilitation centers to cover the needs of people with amputations or severe disabilities. Since its creation, SwissLimbs, trained more than 250 orthopedic technicians, performed over 40 training missions, has donated more than 2,500 prosthetic limbs, created 7 orthopedic clinics in Africa, built a rehabilitation center in a refugee's settlement in Uganda and built a rehabilitation hospital in Tanzania. SwissLimbs is currently active in Uganda, Tanzania, Mozambique, Rwanda, Malawi, Sierra Leone and Guinea-Bissau, and will launch projects in Nicaragua and Ghana in 2022.

The aim of SwissLimbs is to offer low-cost but innovative mobility solutions in developing countries. The majority of people with a physical or mental disability lives in the South of the world: about 15% of the world's population, nearly one billion people, live with a disability, constituting the largest minority in the world. Of these, 80% live in developing countries[1]. People who may already be in a difficult situation due to structural problems in their living environment have also to face with a worsening of this situation due to their disability. Therefore, a person with a disability may find him or herself – because of his or her physical condition – in an impairment situation that will make his or her life much more difficult. In areas where it is already difficult to find employment or income to support oneself and one's family, a person with a disability will find it even more difficult to achieve this goal. In addition to the difficulties caused by the disability, a disabled person will also have to deal with social stigma, which will haunt him or her throughout his or her life. Around the world, stereotypes, prejudice and stigma contribute to the discrimination and exclusion of people with disabilities and their families in all aspects of their lives (Rohwerder 2018)[2]. Life for people with disabilities – in the South of the world as elsewhere – is neither easy nor can be taken for granted. For this reason, finding innovative and low-cost solutions to restore mobility is the main focus of SwissLimbs.

From legs to hospitals

SwissLimbs began its mission with a simple prosthetic leg: the Monolimb. It is a transtibial prosthesis, which is manufactured in three hours and costs much less than a regular prosthesis. The SwissLimbs' idea was to offer to orthopedic technicians in developing countries

1 World Health Organization 2020, Disability and health, World Health Organization, viewed on 20 May 2021, https://www.who.int/en/news-room/fact-sheets/detail/disability-and-health

2 Rohwerder, B. (2018) Disability Stigma in Developing Countries. K4D Helpdesk Report. Brighton, UK: Institute of Development Studies.

Here is our PRO's poster displayed at the ISPO UK Annual Scientific Meeting 2021 to advertise BACPAR's work.

a low-cost but innovative prosthetic solution that was better (lighter, cheaper, fast-produced and more usable) than others available in the orthopedic field. How to make a Monolimb is therefore an essential part of SwissLimbs' training missions for local orthopedic technicians. In addition to the Monolimb, SwissLimbs provides a whole range of technological innovations, from modular prostheses to 3D printed myoelectric hands. Therefore, the orthopedic technicians trained by SwissLimbs will became aware of the most innovative low-cost technologies currently available. SwissLimbs is also committed to always looking for more efficient and cost-effective solutions, thus bringing new examples during trainings.

Technology transfer and training of orthopedic technicians are therefore essential elements in SwissLimbs' projects. But as time went on, the need to also increase infrastructures was evident. SwissLimbs then started rehabilitating orthopedic workshops, supplying them with the machinery and materials needed to operate. Another fundamental problem in rehabilitation in Africa is, in fact, the lack of orthopedic centers. And the few that do exist are often old and lacking in machinery and materials. From Tanzania to Mozambique, from Uganda to Rwanda, SwissLimbs has been involved in rehabilitating outdated orthopedic workshops and supplying them with materials for the manufacturing of orthotics and prosthetics.

Another step was achieved in 2019, with the start of the construction of the first SwissLimbs' hospital in Tanzania. The Desire Charitable Hospital and Rehabilitation Center in Kibaha will offer modern and innovative rehabilitation care services including two operating theaters, a medical laboratory, an orthopedic workshop, a physiotherapy, a training center and clinical facilities. The hospital will be powered by solar energy. Services will be free or subsidized for patients who cannot afford to pay, while those who have the means to pay or are covered by insurance will pay their own costs. In 2020, in partnership with another NGO, SwissLimbs also began the building of a rehabilitation center in the Bidibidi refugee settlement in Uganda, the "New Hope Bidibidi Rehabilitation Center".

From making prosthetic legs to building hospitals: in five years, SwissLimbs has quickly grown in size, and in number of projects expanding its focus and mission.

The importance of local partnerships

The success of SwissLimbs projects is also due to local partnerships. The wise choice of local partners with whom to collaborate in the management of the projects is a fundamental point for their success. Thanks to the reliability of local partners, SwissLimbs saves an enormous amount of money and resources by not requiring local offices with expatriate staff for project management.

Thanks to current communication technologies, SwissLimbs is able to collaborate with local partners at a distance on a daily basis (e.g., via zoom calls, project-specific chats in WhatsApp, in addition to the usual communication exchanges). SwissLimbs has also created the "SwissLimbs network" consisting of more than 200 members, including orthopedic technicians, orthopedic physicians, physiotherapists and other rehabilitation professionals (from Africa, Europe, the Middle East and India). This is a professional network where they can exchange regular information, feedback with each other, ask any technical questions to the Swiss orthopedic technicians and share case stories and benefit of mutual consultations.

SwissLimbs also relies on numerous volunteers, in the field of orthopedics, but also in the field of physiotherapy and occupational therapy. In addition to orthopedic technicians volunteering for missions, SwissLimbs believes it is crucial to implement other areas of ortho-prosthetic rehabilitation. For this reason, it has collaborated with the University of Applied Sciences and Arts of Southern Switzerland (SUPSI) to send final-year physical therapy and occupational therapy students to its projects in Mozambique, Uganda, Rwanda and Sierra Leone, for a three-months internship. SwissLimbs is also always looking for trained volunteers to support local staff in the above fields.

Orthopedic personnel at the Mwanza Prosthetics & Orthotics Workshop (MPOW) created by SwissLimbs in 2018, her hope was renewed and she was given the opportunity to regain her mobility. Today, Asia is walking again, but more importantly, she is smiling. She is smiling not only because she can walk again, thanks to her prostheses, but also because at MPOW she has found a job and her mission. Initially, Asia regularly visited MPOWs to encourage other amputees and give them the strength to continue, now she has been employed as a motivator, inspirer and spokesperson.

A similar, but equally effective, project is currently being planned by SwissLimbs in Sierra Leone, where it aims to support the construction of an orthopedic center in which amputees themselves will be trained to run the workshop and a self-sustaining farming project.

Living with a disability is not easy for anyone, and in the Global South it is even more complex. Nevertheless, many steps have been taken in the right direction, and many more will follow. SwissLimbs believes that mobility is a basic human right for all people, everywhere! SwissLimbs is a major player in changing how the world looks at disability: no longer in resignation and despair, but with applicable solutions bringing hope for a bright future.

The PReliMinAry (Pain Relief in Major Amputation) Survey

Lauren Shelmerdine[1], Brenig Llwyd Gwilym[2], Graeme Keith Ambler[3], David Charles Bosanquet[2] and Sandip Nandhra[1, 4]

1-Northern Vascular Centre, Freeman Hospital, Newcastle upon Tyne, UK
2-South East Wales Vascular Network, Aneurin Bevan University Health Board, Newport, UK
3-Bristol Centre for Surgical Research, University of Bristol, Bristol, UK
4-Population Health Sciences Institute, Faculty of Medical Sciences, Newcastle University, UK

Background

Major Lower Limb Amputation (MLLA) is associated with significant peri- and post-operative pain.

The Vascular Society[1] and Vascular Anaesthesia Society of Great Britain and Ireland identified this as a research priority after patient and healthcare professional prioritisation exercises.[2]

The PReliMinAry survey was designed to evaluate existing strategies regarding peri- and post-operative MLLA analgesia, and identify areas of equipoise and uncertainty, thereby informing future research.

Methods

A targeted multi-national, multi-disciplinary survey was designed and conducted via SurveyMonkey®.

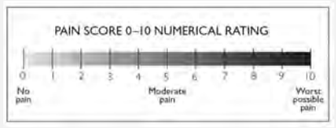
The survey was live between 5/10/2020-03/11/2020 and advertised via social media and society email lists.

The 10-questions explored 'pain-team' services, pre-operative neuroleptic medication, pre-incision peripheral nerve blocks and catheters, surgically placed nerve catheters, post-operative adjunctive regimens, future research engagement and equipoise.

Results

- 76 responses were received from 60 hospitals worldwide. Where multiple answers were received from the same institutions, data from the most senior person responding was analysed.

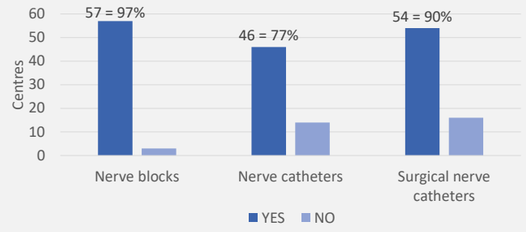
- The majority of respondents were medical (63 surgical and 8 anaesthetic doctors) including 40 consultants/attendings, 27 registrars/residents and 4 fellows. 9 centres submitted duplicate responses; for 6 of these centres the answers were counted from Consultants, the remaining 3 from registrars/fellows.
- The remaining responses were from physiotherapists (2), nurse practitioners (2) and 1 tissue viability nurse.
- Twelve hospitals (20%) had a dedicated MLLA pain team, seven (12%) had none and the remainder (n=41; 68%) had a 'generic' pain team who reviewed MLLA patients post-operatively.
- Most pain teams (n=52; 87%) assessed pain with a 0-10 numerical rating scale.



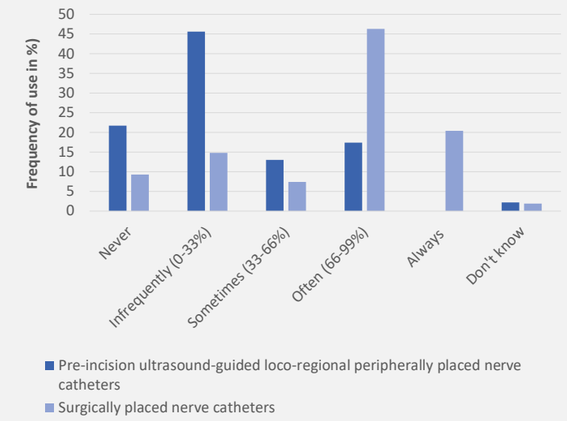
- Oral neuroleptic agent preloading was "never" done by over half respondents (n= 42/76; 55%).
- Forty-seven hospitals (78%) utilised patient controlled opioid analgesia.

Results continued

Graph in response to the survey question: **"Does your unit have the capabilities to provide pre-incision loco-regional peripheral nerve blocks, pre-incision ultrasound (US) guided loco-regional peripheral nerve catheters and/or surgically placed nerve catheters?"**



Of the 46 units which have the capability to site pre-incision US sited peripheral nerve catheters and the 54 which can place surgical sited nerve catheters, what is the frequency of use?



Conclusion

The survey revealed a preference towards 'single-shot' nerve blocks and surgical catheters.

A difference between the use of US guided nerve catheters and those surgically placed likely reflects the difference of literature evaluating these two techniques.

Most respondents felt there was equipoise surrounding future trials evaluating US guided pre-incision nerve blocks/catheters, but less so for surgical catheters.

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THE SIMILARITIES AND DIFFERENCES OF LIVING WITH THROUGH-KNEE AND ABOVE-KNEE AMPUTATION

Hayley Crane[1], Chantel Ostler[2,3], Dan Carradice[1], George Smith[1], Maureen Twiddy[1]
[1]Hull York Medical School, Hull, United Kingdom. [2]Portsmouth Hospitals University Trust, Portsmouth, United Kingdom.
[3]The University of Southampton, Southampton, United Kingdom

Background

- Through-knee amputation (TKA) offers multiple functional advantages over above-knee amputation (AKA) but is infrequently used[1].
- One of the reasons given for this is that patients do not like it due to the nature and cosmesis of the prosthesis[1].
- An in-depth comparison of the patient's experiences have never been explored.

Aims

To compare and contrast the experience of living with TKA or AKA, specifically prosthetic satisfaction, perceived body image, and overall quality of life.

Methods

- **A qualitative study using semi-structured interviews**
- 13 people with TKA and seven with AKA completed a face to face or telephone interview.
- Participants were recruited from two UK artificial limb centres.
- A sampling frame was used to ensure a balance on gender and level of mobility.
- The interviews were directed by a topic guide, audio recorded and transcribed verbatim.
- **Thematic analysis** with an inductive approach was used to draw conclusions from the data.

Reflexivity statement: the first author (HC) is a physiotherapist with experience in amputation rehabilitation. All interviews were conducted by HC. HC did not disclose to the participants that she was a physiotherapist unless they asked. Some of the participants had seen HC for part of their rehabilitation prior to the study. Analysis was completed by HC with support and discussion with her supervisor MT, who is an academic behavioural scientist.

Results

Level of amputation did not influence whether they wanted to hide or display their prosthesis. People with TKA find it hard to disguise their knee, but are grateful for the functional advantages. People with AKA find it hard to disguise their "bulky socket".

Hiding the amputation vs showing it off with pride

"I haven't worn long trousers since the day I had my amputation" AKA, male, high mobility

"but at the end of the day, you know, once you've got you trousers on and you're sat like this and you sit cross legged like this no one knows, nobody" TKA, male, high mobility

Staying positive after amputation

I'm a through the knee amputation, I know there's less of them, I much prefer that to above the knee, just the fact that I can stand longer, go further distances when I'm walking" TKA, male, high mobility

"I mean it was wonderful to, to actually wake up and not have any pain, it was absolutely amazing" AKA, female, low mobility

Both groups experienced initial relief post amputation. The TKA group were grateful they had kept more of their leg.

Finding new ways to do things with the inevitable burdens of amputation

Both groups face daily grievances with their prosthesis. The TKA group complained that their knee hits the car dashboard or sticks out too far in a cinema seat. The AKA group dislike that their socket rotates, digs in and nips their skin.

When the prosthesis becomes misaligned: *"you've then got to stop somewhere and get into somewhere where you can sort of remove it and then put it back on again properly kindathing, and it, it, it can be an embarrassment". AKA*, male, low mobility

"even with the seat fully back can be a problem getting into a car without smacking the knee off, you know, the, the, the lower part of the dashboard" TKA, male, high mobility

Conclusion

In contrast to the belief expressed by many UK clinicians[2,3], people with TKA are not unhappy with their amputation. Their prosthetic knee sticks out further than they would like, but they are prepared to accept this cosmetic drawback to keep the functional advantages. TKA is an acceptable alternative to AKA and further work is needed to improve uptake of this procedure in UK practice.

Acknowledgements
With thanks to the British Association of Chartered Physiotherapists in Amputee Rehabilitation for supporting this study

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Application of the Basic Amputee Mobility Score (BAMS) in Peterborough County Hospital

Rhiannon Loutit BSc Physiotherapy Student

1. Introduction

- Amputees are becoming more and more common.
- Their causes are due to a number of reasons including; trauma, vascular issues, diabetes, tumors/cancer & infection.
- Around 85% area due to vascular issues – 25-50% of which have diabetes.
- Created by an experienced group of physiotherapists; 2 experienced in amputee and one in senior research.

2. Procedure and Method

- Used for lower limb amputee (LLA) patients in an inpatient setting for the daily assessment of the basic mobility of patient with lower limb (LL) amputations.
- **4** essential activities assessed which include:

1. **Supine in bed to sitting on the edge of bed**
2. **Bed to wheel chair transfer**
3. **Indoor mobility with a wheelchair**
4. **From sitting in chair/ wheelchair to standing on non-amputated leg.**

- Each are scored from 0-2: 0= not able, 1= with assistance and 2= independent, with a maximum score of 8.

3. How is it used in Peterborough County Hospital?

- Used on the surgical ward when amputees are repatriated from Addenbrookes Hospital following their amputation and arrive at PCH to follow their progression, recovery and rehabilitation.

4. Strengths and Psychometric Properties

- ✓ Quick
- ✓ Easy to assess
- ✓ Can be performed by a wide variety of HCPs
- ✓ Strong predictor of mortality
- ✓ Used on all LL amputees
- ✓ Transferable among HC professionals
- ✓ Aids to help identify care needs after discharge
- ✓ Easily applicable in daily clinical practice
- ✓ Progress can be monitored daily – progression or deterioration
- ✓ Excellent intra and inter rater reliability (0.85-0.98) (ICC=0.94)
- ✓ Excellent construct and concurrent validity (P < 0.001)
- ✓ Has a large effect size (standardized response mean of 1.3), which outlines that it can be used to capture the early improvements of in-hospital amputee patients.
- ✓ SEM of <0.2 (standardised error measurement)

5. Weaknesses

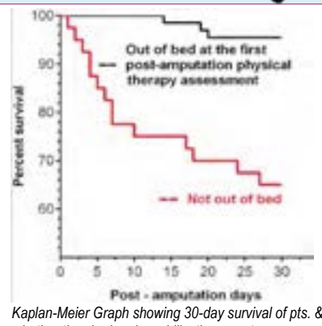
- ✗ Cannot be used long term; requires further categories
- ✗ Not useable in outpatient setting due to being too simple
- ✗ Not much research - due to being very new

6. Comparisons

- ! Amputee Mobility Predictor Score – A very detailed measure which can be used for both amputees with and without prosthetics. Used in both inpatient and outpatients. But if used as an inpatient, it is time consuming and complex. More time in an outpatient setting to complete.
- ! One Legged Stand Test – Used also as a predictor of function and prosthetic use 1-year post surgery and was used alongside BAMS to examine its feasibility. However, prosthetic fitting is not possible in all patients and not the primary focus of today's acute hospital inpatient rehabilitation programmes.

7. Supporting Physiotherapy Practice

- Previous OMs involved scoring of walking and prosthetic use (Kristensen et al, 2017) – none specifically for LLA basic activities and independence prognosis.
- NICE guidelines outline that starting rehab early can help prevent complications and shorten time to recovery, optimising individuals functional outcomes (NICE, 2021).
- The Netherlands Society of Physical and Rehab Medicine also state that main objectives in the immediate postoperative phase relate to early mobilisation (NSPRM, 2012).
- Use of transfer techniques rather than hoisting should be used to help build up individuals independence following LLA (BRSM, 2018).
- Independence in transfers and wheelchair skills is considered mandatory for all patients for independent daily functioning, especially for those returning home (Kristensen et al, 2017).



Kaplan-Meier Graph showing 30-day survival of pts. & whether they had early mobilisation or not.

8. Informing Our Practice

- It relates to how well the patients mobility and independence progresses following their amputation.
- The outcome of their score indicates if the intervention has been successful. This outlines the quality of therapy received from the therapists within hospital. It also helps to predict their chances of hospital readmission as it assesses their essential transfers.
- It helps to pin-point the therapy treatment methods needed to progress amputee patients, and for post-discharge needs.
- In a 2017 study, it indicated that "wheelchair mobility needs more training and should be given a higher priority in the planned physiotherapy programme due to a variability in day-to-day monitoring" (Kristensen, 2017).

9. Conclusion

- ★ Early mobilisation is a fundamental MDT care task after a major LL amputation (Madsen, 2017).
- ★ The BAMS measure is reliable, valid and has a large responsiveness with a low measurement of error.
- ★ It provides a valuable tool for daily monitoring and communication between different HC professionals and in different settings, until independence is reached.

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PROFILE PAGE

Alison Elston, Physiotherapist and Northern Region Rehab Lead, Auckland, NZ

I work with amputees in…
Auckland, New Zealand. I work for Peke Waihanga – Artificial Limb Service which has six centres around the country. I am based in the Auckland centre, leading a small rehab team of physios, OT and a nurse working in collaboration with our prosthetist colleagues. We see patients of all ages with limb loss due to a variety of causes, including diabetes, vascular, trauma, infection and congenital. We provide services to patients lifelong from the post op phase. We are also able to offer pre amputation consultations if requested.

The biggest challenges in my role with amputees are…

- Patient complexity including medical, social and environmental factors
- Our centre covers a large geographical area (some patients have a 3-6-hour drive) and it can be challenging to access intensive rehabilitation services in these more remote locations. In response to this we are planning a mobile prosthetic service and exploring how rehab services fit with this model

The effects COVID has had…
By comparison we in NZ have been very fortunate (I spoke too soon!), however our lockdown periods have prompted us to develop and use digital health supported by the supporting guidelines and procedures. We found video conferencing particularly useful and effective for conducting initial interviews/ assessments, medical consultations and joint sessions with other therapists and we continue to integrate them into our current practice.

I joined BACPAR because…
To keep up to date and abreast of current best practice as well as networking to share ideas.

What I bring to BACPAR is…
I can provide a perspective from the other side of the world (literally!) and it is my understanding that our model of delivery has some differences compared to the UK systems, for example we frequently undertake joint sessions with our prosthetist colleagues with patients in the centre; our patients are largely discharged home post-operatively prior to limb fitting; because we provide prosthetic and amputee rehabilitation services for a large geographical area as well as providing rehabilitation 'in house' we frequently refer to and support other therapists who are providing rehabilitation locally.

NEW CHARITY EVENT FROM THE RICHARD WHITEHEAD FOUNDATION! – RUN WITH RICH!

A mass participation inclusive 1k & 5k running event for everyone. Run Your Way with Richard Whitehead Paralympic Medallist & Marathon Champ. Take part in this friendly and inclusive fun run to raise funds to help disabled people believe and achieve a life without limits.

At: Holme Pierrepont Country Park, home of The National Water Sports Centre, NG12 2LU

On: Saturday 25th June 2022

More Info: **https://www.eventbrite.co.uk/e/run-with-rich-registration-277437652487**

RUN WITH RICH
YOUR WAY

THE VASCULAR SOCIETIES' ANNUAL SCIENTIFIC MEETING – 2021 – MANCHESTER

Louise Hichens, Team Lead Physiotherapist, Vascular and Surgery, North Bristol NHS Trust

It was brilliant to be able to attend an in-person conference after the chaos of the last few years. It was incredibly well organised and held at a fantastic venue (even if it did mean an early start from Bristol!). The BACPAR programme was themed around pain, its causes and management along the whole of the patient journey.

Lou Tisdale gave us a brilliant and detailed refresher on the neurophysiology of pain, which was incredibly useful as I don't think I have thought about pain in that level of detail since my university days and it highlighted that I definitely need to do some revision. She followed this up with an overview of the pharmacological treatments available, both prescription and off the shelf, to help treat pain.

Keith Hussey provided an examination of the many differential diagnoses to consider when a patient presents with acute stump pain that is beyond what may be normally expected post operatively. These included haematoma, infection, and ischaemia. He also explained his reasoning for conservative versus operative management of complications.

Prosthetist Laura Brady discussed the many potential causes for residuum pain in prosthetic users, and socket technology that can be used to combat this. For example, liner and sock solutions to combat perspiration, solutions for volume management and she reinforced the importance of an MDT approach and of thorough patient education.

Management of chronic pain and pain clinics were discussed by Lars Williams, which highlighted the importance of using different strategies to manage chronic pain compared to acute pain, and the vicious cycles that are seen in persistent pain. I was reminded of the importance of trying to capture patients with chronic pain earlier in their journey, and to manage expectations with the intention of a pain management programme being to help a patient with their experience and acceptance of pain, rather than eliminate their pain.

It was great to get a patient experience of pain with Kieran McKiernan sharing his journey to becoming a bilateral amputee whilst continuing to work as an ED consultant. It was enlightening to hear his reflection on the decision to proceed with amputation, and his wish to just 'get rid of it', balanced with understandable fears for the future, the impact on his job and family life, and the difficulty of having a better insight into potential complications than a non-medical patient may have had in his position.

Maria Munos demonstrating Neuromotas

We heard from Professor Max Ortiz Catalan, who discussed the importance of identifying neuromas and distinguishing this from phantom limb pain (PLP), as well as discussion around neuroma treatment such as targeted muscle reinnervation. He also discussed causes and treatments of phantom limb pain, and the research happening at the Centre for Bionics and Pain Research in Sweden regarding Phantom Motor Execution as a treatment for PLP. This was followed by his colleague, Maria Munoz, who demonstrated the Neuromotus, which uses augmented reality to allow patients to take control of their phantom limb.

Kate Lancaster gave an inspiring talk about graded major imagery (GMI) and the stages of left and right discrimination, explicit motor imagery and mirror therapy to help support a patient to control their phantom sensations. The feedback she shared from her patients was impressive and it was a great reminder of the psychosocial aspects of pain, and a prompt to myself that I need to re-read Explain Pain (Moseley & Butler).

The afternoon of the first day comprised of shorter presentations and updates on current research. This included a review on the rehabilitation services for non-ambulatory vascular amputees by Amirah Essop-Adam; this starkly highlighted that rehab is less commonly provided to non-ambulatory amputees, with the focus often on wheelchair rehabilitation. Currently there are no guidelines or research regarding rehabilitation for the non-ambulatory amputee. A modified BLARt was presented by Elizabeth Bouch that also included environmental, home and social care factors, as well as including extra questions in the special risks and cognitive capacity sections. At present, the modified BLARt is not validated but I look forward to hopefully hearing how this research has progressed at future conferences as I can see it being very useful.

Hearing the feedback from the covid questionnaire was very reassuring, as it reflected themes we were seeing in our own service; more fixed flexion deformities, more bilateral amputations and deconditioned patients. This was further complicated with difficulties accessing gym / therapy space. The questionnaire highlighted the frustration that members felt and the responsibility to fight for the needs of their patients. There were some positive reflections from the pandemic such as improved compliance from patients as they were having more 1:1 rather than group sessions.

The SPARG PPAM aid guidelines were reviewed and created great discussion in the room regarding when services start using the PPAM aid and how wounds are considered. It was also useful to hear how other services progress patients when using the PPAM aid.

On the Wednesday evening after a glass of wine at the welcome reception, I joined the Society of Vascular Nurses (SVN) evening symposium 'A journey of recovery', where the inspiring Caroline Coster talked about her experience of surviving covid at the beginning of the pandemic, resulting in quadruple amputations. Her positivity was so impressive as she listed some of the pros of becoming an amputee – no longer having arthritic wrists or bunions! On a more serious note, she highlighted so many everyday tasks that we all take for granted, such as eating in public, that she found incredibly hard.

It was great to have the charity sector represented, with talks from LimbPower on the ReVAMP program, which is a 12-week fitness and nutritional program that includes adapted exercise circuits and is taught by amputees. The Limbless Association also gave a reminder on the brilliant support they can provide amputees, such as the volunteer visitor service, their multiple resources and legal advice, as well as outlining the training and support that volunteer visitors get.

Rachel Malcolm used some case studies to explore the advantages and disadvantages of using direct socket TF. This enables the prosthetist to manufacture a socket directly on the patient in one appointment rather than casting and bringing the patient back in to fit. Another advantage is that the prosthesis does not require an ischial shelf, is less bulky than a traditional prosthesis, and has improved cosmesis in clothes, although it did require a long appointment time. Patient feedback was that through improved socket fit, it had improved confidence and independence

I had hoped to try and see more of the other societies' programmes, but it was difficult to stray away from the BACPAR programme when it was so good. On Friday I did attend the amputation research and progress discussion, where it was great to see physiotherapists represented by Hayley Crane as she discussed her through knee amputation (TKA) study and the advantages and disadvantages of a TKA. She recognised that there are still no high quality random controlled trials regarding TKAs or enough evidence regarding preferential technique, but that there are some clear advantages. This forum also discussed the VIPER trial, which is reviewing negative pressure wound healing to help prevent surgical site infection, and the Perceive study which is reviewing surgeon's ability to predict outcomes. I also did not spend as much time looking around the exhibition hall as I would have liked as there was an array of stands and posters, although not as many posters from BACPAR members as there could have been!

BACPAR members at the gala dinner

It was disappointing that only a few BACPAR members attended the gala dinner, but that did not stop us from enjoying a great meal, and we made up for our low numbers with our presence on the dance floor and at the casino tables! It was also good to spend some time socially with other members of the MDT from Bristol – even if none of them recognised me out of my tunic and in my glad rags!!! I would definitely recommend attending the gala dinner in future years as it was a really nice opportunity to network and get to know fellow BACPAR members.

What a great opportunity the conference was to step away from the firefighting mode that I have been in for the last few years and be able to learn and reflect. Having an overarching topic of pain allowed it to be explored in great depth and it provided relevance for all present, irrelevant of which setting they work in. I have made multiple pages of notes that I need to digest and put into action when I get back to Bristol. Thanks so much to all the organisers and to Vascular Society, Society for Vascular Technology and SVN for inviting us along. I look forward to seeing everyone in Brighton in November (23rd to 25th), if not before.

[EDITORS: See articles on 'pain' topics on the following pages]

PROSTHETIC SOCKET TECHNOLOGIES AND THE MANAGEMENT OF RESIDUAL LIMB PAIN

Laura Brady, Team Lead Prosthetist, WestMARC, Glasgow

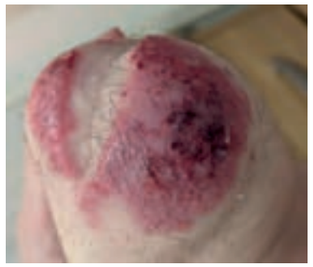
Residual limb pain (RLP) is a very complex area often requiring MDT involvement. The presentation of pain can differ and it is not always clear who is best to treat this pain, as a result the Prosthetic Team at WestMARC has developed a "Residual Limb Pain Pathway" to facilitate appropriate and timely referrals to the correct member of the MDT.

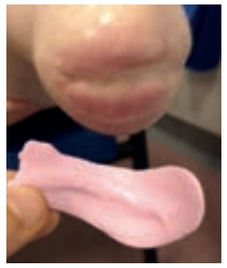
As a Prosthetist I mainly focus on the extrinsic factors associated with RLP related to the prosthesis, specifically the socket. The socket is a vital component of the prosthetic limb as it transmits weightbearing forces throughout the gait cycle and helps to protect the residuum. If the socket does not fit and suspend well it can affect the health and wellbeing of the residual limb. This is reflected in our Socket Comfort Scores (SCS) where a correlation has been noted with poorer socket fit and lower SCS.

I would like to discuss some of techniques and technologies employed by the Prosthetic team at WestMARC, in Glasgow, to help combat some of the common causes of RLP .

This may come as a surprise to some but in the "summer" months in Glasgow our most common patient complaint is perspiration. This regularly results in blisters, pistoning and subsequent skin break down. Our initial suggestion to patients is the use of off the shelf treatments such as antiperspirants and skin conditioning products, providing there is no wound present. These have proved to be successful in many cases, however not all. Our team has found Swiftwick socks beneficial in helping to reduce perspiration due to the specialised fibres which wick sweat away from the skin. These socks can often be accommodated within the patient's current socket, enabling the patient to try the intervention quickly and provide feedback. In more extreme cases we have utilised Silcare Breathe or Alpha Smart Temp liners which employ different techniques to help manage temperature and perspiration.

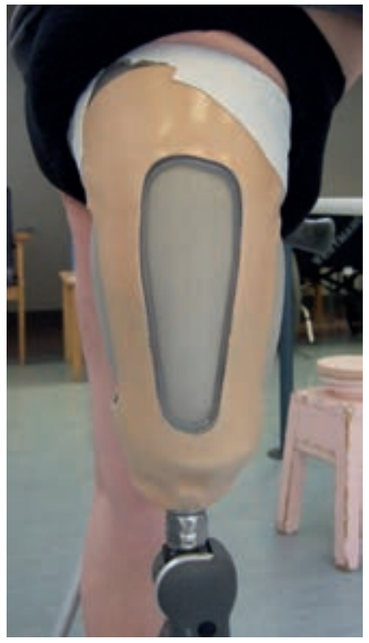
Scarring and skin grafted tissue is another area which contributes to RLP and socket fit issues within our clinic. This is more common in our traumatic amputee population who can report issues with shear forces and present with wound formation over insensate scar areas. In this circumstance we mainly we use liners to help protect and cushion sensitive areas while reducing shear forces. If the shape of the residuum is compromised by scarring or invaginations we opt for custom liners or silicone infills (below) to help create a more uniform shape. This helps to reduce the risk of any air pockets forming between the skin and socket interface which could contribute to skin breakdown.

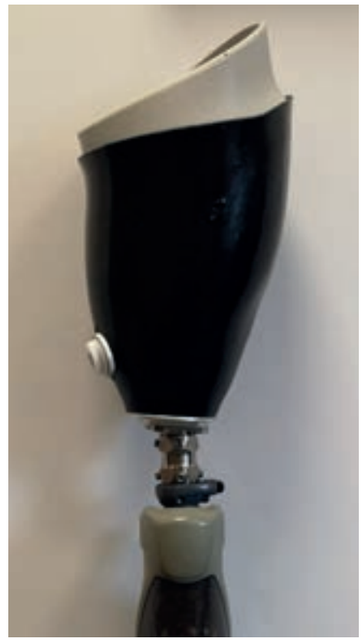




Changes in residual limb volume can also be problematic in our trans tibial and trans femoral patient groups and is a common cause of RLP. Classic signs of poor volume management are: skin redness, wounds, bursa formation, distal congestion and the formation of adductor rolls. Our Prosthetic team have employed different socket technologies to help patients manage changes in residual volume and maintain an optimum socket fit. For example, we have utilised the Revo fit system which incorporates a boa dial with strategically placed panels and or pads (below) allowing the patient to adjust their socket fit throughout the day. Good upper limb dexterity is required to operate this system and the boa dial can compromise the cosmetic finish of the limb which are important points to consider.

The Ossur Direct TT socket is another system which has become routine clinical practice, enabling our Prosthetists to provide patients with a new socket on the day. This has been particularly useful when a socket is required urgently i.e., in the presence of a wound or an ill-fitting socket or when travel to and from our department is challenging. In one patient's case we were able to provide a new socket on the day encouraging a wound to heal within a 2-week period. Without this system the patient would likely have been unable to use his prosthesis until a new socket could be manufactured.





Typically, in our trans femoral patient population the most common cause for RLP or discomfort is the proximal socket brim. In response to this our clinical and technical team have utilised more flexible socket materials such as Northvane liners or silicone sockets in an attempt to improve comfort. More recently there has been a huge focus on sub ischial style sockets including Hi Fi, Nu Flex and Ossur Direct TF sockets (above). We have found sub ischial sockets to be beneficial in improving sitting comfort for our lower activity patient whereas our more active patients report the sockets to be less restrictive around the hip joint. Physio input is essential when fitting sub ischial sockets to ensure patients have adequate hip muscle strength to control the prosthesis.

Finally, our Prosthetic team believes that patient education is crucial in the management of RLP. It is important that patients are taught how to care for and manage changes to their residual limb. As Covid forced some of our clinical team to work from home we used this opportunity to develop patient information documents. These documents focussed on: the management of socket fit, residual limb care, use of liners and knee sleeves as well as the care and maintenance of the prosthetic limb. This information has proved valuable to both our primary and established patients as it has empowered patients to problem solve volume management issues, maintain good residual limb health and reduce unnecessary visits to the department.

In summary RLP is a very complex area requiring a patient centred approach. There have been lots of advancements in prosthetic technologies to help combat issues contributing to RLP but most importantly patient education and MDT working are crucial in achieving good outcomes in pain management.

PHANTOMS "OUTSIDE" OF THE OPERA – CHALLENGING BUT MANAGEABLE

Kate Lancaster, Physiotherapist, Queen Mary's Hospital, Roehampton, London

The last 10 years or so have been an interesting learning curve in how to deal with our patients who struggle with phantom limb pain (PLP).

Not only did I need to learn what phantoms were and how they manifested, but I also had to exponentially increase my knowledge and understanding of pain. Until I attended the BACPAR conference in 2009 where the Neuro Orthopaedic Institution (NOI) group presented "Explain Pain", my understanding of pain was admittedly, pretty poor. That presentation was an absolute light bulb moment for me. Suddenly it all made sense and I started out on my journey learning more about pain and how to manage and treat it through using Graded Motor Imagery (GMI). Of course, I was also faced with most of my patients experiencing phantom limb sensation (PLS) as well as PLP and so my understanding of this intriguing phenomenon grew.

Over the years since, I have used the GMI treatment process with many patients suffering chronic PLP. I have had some incredible successes using this method including with one patient who had been suffering with PLP for about 40 years. The best outcome is that they have continued to be mostly pain free and when they do have some pain, they understand why it is occurring. They can access the tools I have equipped them with to be able to deal with PLP themselves. Of course, not every patient has been a success, but when I completed an audit of the patients I had seen, common themes emerged in the less successful cohort of patients. These themes centred on reasons often out of their control – devastating diagnoses of their own health, family members being seriously ill, unwillingness to do the homework required to embed neural changes because they were expecting quick fixes, not attending appointments, and struggling to accept the information and science behind understanding pain. Instead, they blamed their prosthesis/ surgeon/ etc.

However, it is not just established patients that struggle with PLP. We certainly do not have the time to use the full GMI process on all our patients who have PLP. However, as my understanding grew, I realised that our primary patients are not in a chronic PLP stage. If we consider all the other biopsychosocial aspects of what is going on in their lives at the point when they are seeing us (for example, loss of limb; loss of identity; loss of independence; loss of role; anxiety about their future; what will a prosthesis feel like; what is the physio going to do to me today etc), it is hardly surprising that they often struggle with PLP. We therefore have the opportunity to try to prevent their phantom pains from becoming chronic using the principles of Explain Pain and GMI.

Consequently, over the years, I have been slowly introducing education sessions about phantoms and pain, often accompanied by regular chats with the patients during the rehab sessions; getting patients to try to feel and move their phantom limbs as early as possible to help "reassure" their brain and give them control over their phantoms. Getting clinicians to not just automatically ask their patients at initial assessment "Do you have PLP?" is important to avoid at the onset because it inevitably makes the patient assume all phantoms are painful. Ask instead "Can you feel your phantom?" and if the answer is yes, take that opportunity to explain why, demystify and normalise phantoms. Only then ask "Does your phantom ever hurt?" Again, take the opportunity to explain why this might be and how we can help. Our service has also introduced imagining how patients' phantoms would feel during exercise classes or when walking with their prosthesis, along with relaxation sessions to help manage their understandable stresses and anxieties. As part of our education sessions, we also work on managing patient expectations (including goal setting and discharge planning), explaining processes of limb manufacture and the future after rehabilitation has finished. We reiterate how aware we must all be of the language we use. For example, don't say you will be "back in a minute". You rarely, if ever, are! Also carefully consider your position regarding their phantom limbs – and don't ever "sit" on their phantom, for example.

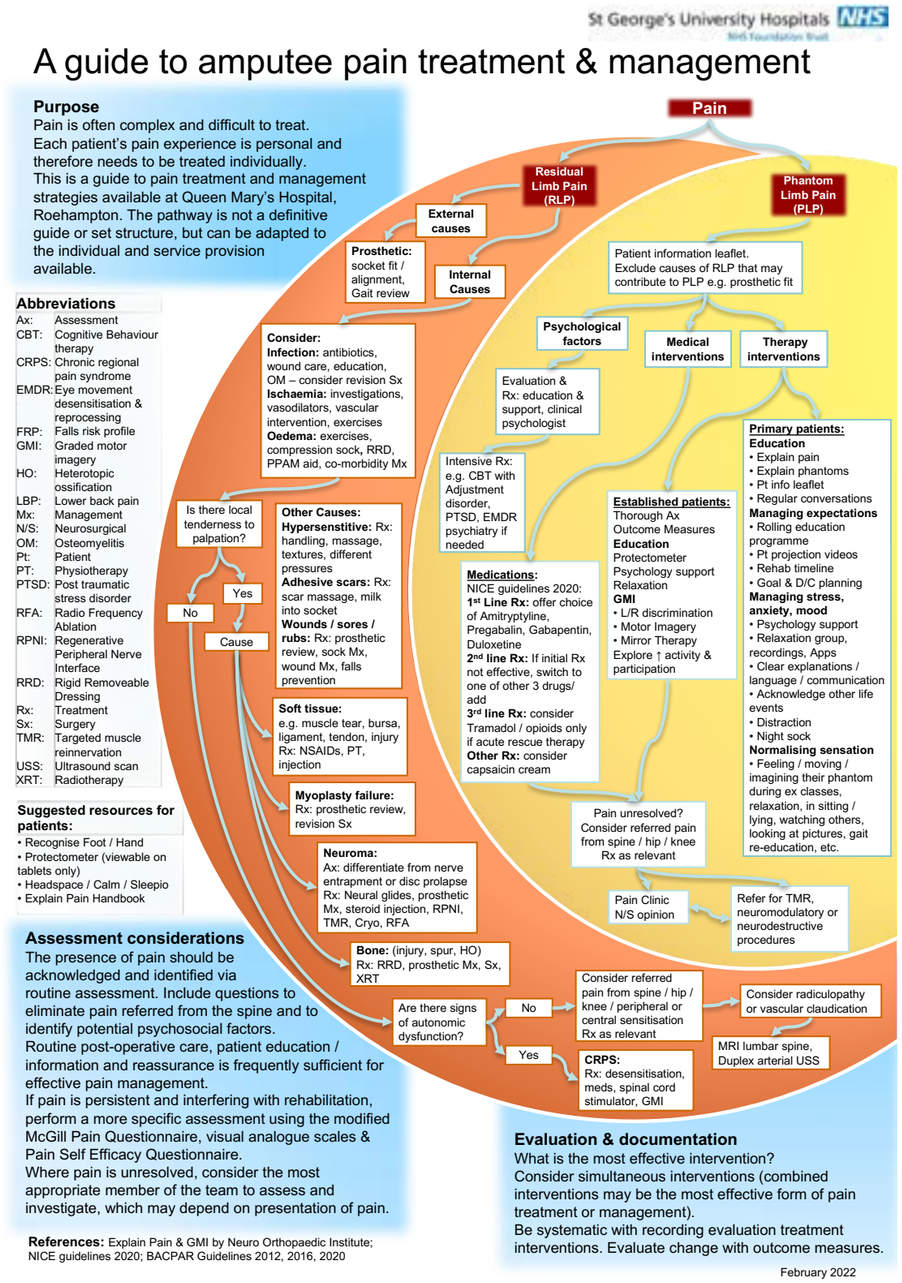
It's funny, although I had initiated many of these changes to practice, I had never really managed to reflect on what we were doing and/or how we were doing it! However, last year I was invited to speak at the inaugural International Phantom Limb Pain Conference in Gothenberg (sadly I had to present virtually due to COVID) and then again at the BACPAR conference in Manchester 2021. This forced me to think more deeply about what we were doing and pull my learning together so that I could explain it to others. I have had some amazing feedback and some fascinating conversations with people around the world due to the talk I gave at Gothenberg and this really excites me.

Hopefully the message is finally getting across that PLP is not something that has a quick fix or is purely a medical problem that can be solved by some surgery or a snazzy gadget, but that it needs a holistic approach to have lasting effects and requires the patient to ultimately learn to accept their amputation. I cannot recommend enough the excellent article that was written in the winter 2021 Step Forward magazine by Kim Lyons called "Let it go" that explains so beautifully what acceptance means.

I have also updated the "Guide to amputee pain treatment and management" poster that Mary Jane Cole initially produced in 2008 and I am proud to introduce the updated version to you in this Spring BACPAR journal. I hope it not only helps guide you in managing and treating PLP but also in managing and treating residual limb pain too.

Our service is also about to be part of a PhD project exploring the impact and management of PLP – so watch this space!!

I certainly do not have all the answers to PLP, and I learn something new with every patient I work with because every patient's pain is individual. However, I do believe that we can have a truly positive impact on helping our patients' PLP by making some relatively easy changes and by educating ourselves and our patients in understanding the fascinating phenomenon that is the phantom limb.



ANNUAL SCIENTIFIC MEETING – A COLLABORATIVE OCCASION

Douglas Orr, Surgeon, Chair of the ASM Committee, Vascular Society of Great Britain and Ireland

The Annual Scientific Meeting (ASM) of the Vascular Societies of Great Britain and Ireland (VSGBI) has always been a highlight and has encouraged multi-disciplinary collaboration for the treatment for our vascular patients. Previously the Society of Vascular Nurses and the Society for Vascular Technology as well as the VSGBI held a joint meeting, each delivering their own specialist programme. BACPAR became one of the Affiliated Societies before the 2020 meeting but then the pandemic took its toll and that first meeting changed from face to face to online. Despite the limitations, this virtual ASM was viewed as a great success and the feedback from delegates from all backgrounds was very encouraging. It was, however, recognised that there is much more to the ASM than just the delivery of the scientific programme and the overwhelming view was that the meeting should return to a face to face format as soon as possible.

The 2021 meeting in Manchester did take place as planned, just before the omicron variant appeared! All the Societies delivered a full programme and attendance was as high as it has ever been. The feedback from delegates, both from BACPAR and the other Societies, was excellent, with most attendees agreeing that it was a hugely successful meeting. Whether this was all related to the quality of the various programmes, or whether people were just delighted to be able to meet up in person again is not entirely clear.

The next ASM will be in Brighton in November. There is increasing appreciation that the care of vascular patients is very much a team effort and this will hopefully be reflected by increasing collaboration in the various programmes. These are currently being developed and it would be good to see more joint sessions involving the Vascular Society and the different Affiliated Societies, and sessions which will be of interest to those from different healthcare backgrounds. With that in mind, BACPAR members are welcome to attend any of the Vascular Society sessions which may be of interest to them.

The success of the ASM is dependent on all the Societies delivering a high quality programme which engages and inspires the delegates. There are also opportunities to catch up with old friends and colleagues, and also to meet new colleagues, hopefully from across the vascular specialties. Closer collaboration allows us to appreciate the value of what we all do for our vascular patients and can only improve patient care. I look forward to seeing you all in Brighton in November and to another successful meeting.

IMPROVING OUTCOMES IN PATIENTS UNDERGOING MAJOR LOWER LIMB AMPUTATION

Mr. Mohamed S. Mohamed MS FRCS(Gen Surg), Consultant Vascular Surgeon, Medway Maritime Hospital, Gillingham, Kent. mohamed.mohamed9@nhs.net

Major lower limb amputations (MLLA) are brutal, destructive operations that nobody wants to have. They are one of the earliest recorded surgical procedures dating back to the time of Hipprocates (460-370 BC). The first printed illustration of a MLLA was published in the surgical field manual "Feldbuch der Wundarznei" by Hans von Gersdorff, a German military surgeon, in 1517 (fig). Unsurprisingly, the lack of effective anaesthetics, antibiotics, blood transfusions, pain relief, etc at that time led to these procedures being performed at breakneck speed, usually less than 15 minutes, and being almost universally fatal.

In the modern era the majority of MLLAs are undertaken because of severe pain, sepsis, gangrene, and non-healing ulcers secondary to advanced peripheral vascular disease and/or the complications of diabetes mellitus. Less common indications for MLLA include trauma, malignancy, deformities and non-functional limbs. Despite their destructive nature MLLA's do save life and improve the quality of the lives of our long suffering patients. The principal aims of MLLA are (a) to relieve our patients' pain and suffering, (b) provide them with a pain-free, functional stump with which they can rehabilitate, and (c) restore their independence and dignity.

Most patients who undergo MLLA have significant co-morbidities including advanced age, ischaemic heart disease, chronic obstructive pulmonary disease (COPD), previous stroke, chronic kidney disease, diabetes, arthritis and frailty. Published reports indicate high mortality rates within 30-days of surgery (12-22%) and at 1 year (38-48%)[1], reflecting the age and co-morbidities of these patients. MLLAs are also associated with high rates of post-operative complication and prolonged stays in hospital. These place enormous demands of scarce healthcare, social care, rehabilitation and other resources.

In the western world most MLLA's are performed under the care of consultant vascular surgeons whose primary focus is to prevent the catastrophic sequelae of arterial disease. These include sudden death from ruptured aneurysms, strokes secondary to narrowed carotid arteries and amputations of limbs due to peripheral arterial disease or diabetes. We, as vascular surgeons, therefore expend most of our professional time and energies on repairing and reconstructing diseased arteries to prevent these terrible events.

It is a sad fact that, in many if not most vascular centres, amputations are the Cinderella* of vascular surgical practice because they are considered to be a "failure" of vascular practice. Amputation surgery used to be, and perhaps still is in many centres, delegated to the more junior and inexperienced members of the vascular team. The Cinderella status of amputations within the specialty is also reflected in the agendas of most, if not all, major vascular meetings and conferences around the world where the focus is always on repairing and reconstructing diseased arteries. Little, if any, time or space is dedicated in these learned meetings to amputations.

The Multidisciplinary Team

In 2013/4 the National Confidential Enquiry into Patient Outcome and Death (NCEPOD) undertook a landmark national review of the care received by patients who underwent MLLA due to vascular disease or diabetes. Their published report identified significant room for improvement in every aspect of both the organisation and the clinical delivery of care[1]. In particular concern was expressed that there was insufficient thought going into the planning of these patients' treatments resulting in poor outcomes that, in so many cases, were avoidable.

The NCEPOD study report made a total of 20 recommendations to improve outcomes in this highly vulnerable group of patients. One of the report's most important recommendations was for the development of a dedicated multidisciplinary team (MDT) for the care and management of these patients both pre- and post-operatively.

Apart from genuine life threatening or emergency situations the decision to undertake a MLLA should be made by a MDT comprising vascular surgery, physiotherapy, occupational therapy, diabetology, radiology, specialist nursing and an amputation/discharge co-ordinator. In addition all patients should have access to a consultant service in rehabilitation medicine.

Another crucial recommendation was that planning for the rehabilitation and subsequent discharge should commence as soon as the requirement for amputation is identified. Most importantly, except in genuine life threatening or emergency situations, all such patients should be seen by a member of the amputation rehabilitation team, such as a trained and experienced amputation physiotherapist, pre-operatively. The input of such a specialist is vital in helping to decide the most appropriate level of amputation and determining the patient's rehabilitation potential. This includes whether or not there is a realistic likelihood that the patient will be able to rehabilitate using a prosthetic limb or a wheelchair. The importance of having a frank and honest discussion with the patient pre-operatively to set realistic expectations post-operatively cannot be emphasized strongly enough.

The recommendations of NCEPOD are reflected in the standards of care set by the Vascular Society of Great Britain and Ireland (VSGBI)[2,3], the British Association of Chartered Physiotherapists in Amputee Rehabilitation (BACPAR)[4] and the British Society of Rehabilitation Medicine[5]. In its most recent publication on the provision of services for people with vascular disease the VSGBI acknowledged that, since the NCEPOD report was published in 2014, amputee care has improved. This is due to better rehabilitation planning, greater consultant input to care and a reduction in early mortality[2]. The Society also reiterated that a dedicated physiotherapy or occupational therapy led amputee rehabilitation team provides the best patient outcomes[2].

The Future

Throughout all healthcare professions and specialties there is a growing acceptance that MDT working is associated with improved patient care, outcomes and safety. MDT working is also associated with more effective and efficient use of finite healthcare resources. However these bold aims can only be achieved if the traditional attitude of hierarchy within the healthcare professions is replaced with the concept that every member of the MDT is an equal colleague.

Sadly negative and outdated attitudes prevail amongst many vascular surgeons with regard to Cinderella status of amputations and the traditional hierarchy within the profession. Where such attitudes exist it is incumbent upon all members of the MDT to vigorously challenge them and, if necessary, escalate their concerns to higher levels within, or even beyond, their organisations. It is also incumbent upon learned, professional bodies, such as the VSGBI and BACPAR, to collaborate closely and eradicate these outdated attitudes.

Moving forwards there is no doubt that less hierarchy and more collaboration within the MDT can only benefit our patients in terms of their overall outcomes and make more effective use of scarce healthcare resources. Furthermore the close working relationship that is developing between BACPAR and the VSGBI can only improve our patients' outcomes, safety and experience following MLLA.

* "Cinderella" is defined as something that suffers undeserved neglect, or is given less attention or care than is warranted. Until relatively recently this is what amputation surgery has received.

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REFLECTING ON INPATIENT AMPUTEE REHABILITATION PROVISION: A QUALITATIVE STUDY EXPLORING SPECIALIST CLINICIANS' EXPERIENCES AND BELIEFS ABOUT INPATIENT AMPUTEE REHABILITATION AS A PATHWAY OPTION FOR ADULT PRIMARY AMPUTEES

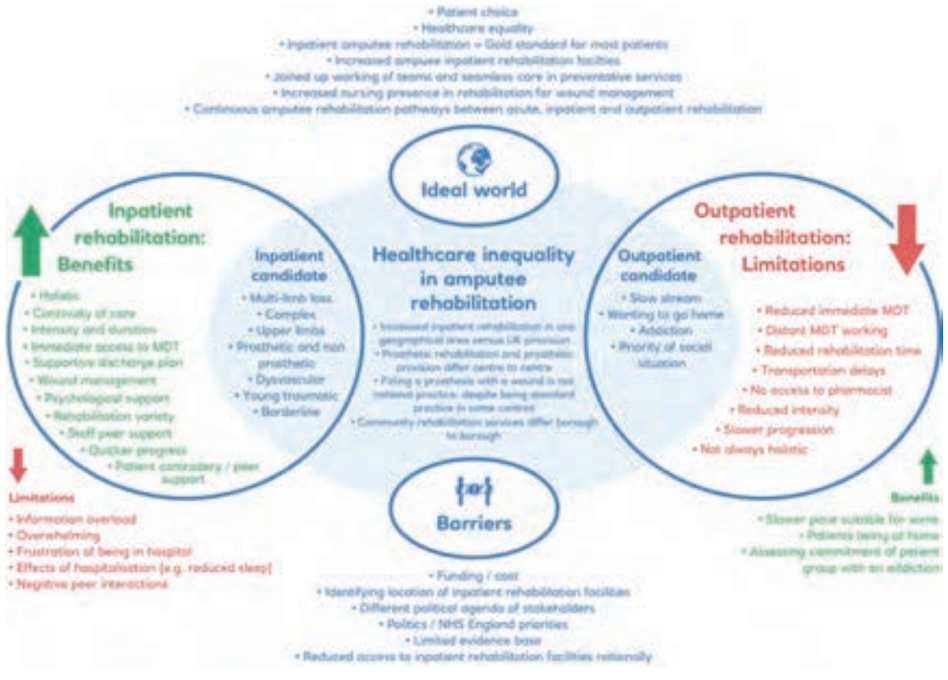
Jodie Spyrou, Advanced Amputee Rehabilitation Practitioner, Guys and St Thomas NHS Foundation Trust
Dr Catherine Lowe, Physiotherapist and Professional Researcher, University of Hertfordshire

Jodie Spyrou along with Dr Catherine Lowe undertook a qualitative research study in 2019/20 (Published in September2021) to explore specialist clinicians' experiences and beliefs about inpatient amputee rehabilitation as a pathway option for adult primary amputees. This was the first qualitative study to explore specialists' attitudes of this pathway.

The authors of the study highlight that amputation is a life changing event (NCEPOD 2014) and that £60 million per year is spent by NHS England on specialist rehabilitation for those with amputation (NHS England 2018). Research supports inpatient rehabilitation for primary amputees (Dillingham et al 1008, Pezzin et al 2013, Roth et al 2014, Stineman et al 2008) but in spite of this evidence, the UK has minimal NHS specialist amputee inpatient rehabilitation facilities. Healthcare inequality is recognised in amputee and prosthetic services in the NHS (NHS England 2018).

Spyrou and Lowe recruited their participants from specialist physiotherapy amputee interest groups in Greater London and the South East, UK. This ensured participants had exposure to both outpatient and inpatient amputee rehabilitation models as both are available in this geographical location. Their results found that amputee specialist clinicians believe inpatient amputee rehabilitation to be the preferred model of rehabilitation for the majority of adult primary amputees. However they identified inequalities in both inpatient and outpatient rehabilitation provision. Geographical variations were acknowledged around the type of rehabilitation providers available, whether specialist amputee inpatient rehabilitation was available, time scales of prosthetic rehabilitation provision, prosthetic fitting over wounds and the availability of community rehabilitation services; these all varied according to geographical location. There was also a common theme of an "ideal world" that emerged.

Results presented: Conceptual Framework



The clinicians who participated recognised that healthcare inequality and geographical variation exists within primary amputee rehabilitation provision within the NHS and that NHS specialist amputee inpatient rehabilitation should be a more accessible pathway. This was the overarching theme. Some specialists believed that inpatient rehabilitation facilities may be a way of compensating for amputee rehabilitation inequalities. These results echo patient experience (NHS England 2018). The subsequent challenge is how to address these inequalities and geographical variations that this study identified.

Results presented: Quotation examples

Inpatient Rehabilitation:
'I think that an inpatient rehab unit is by far the best possible option'
'if they've... lost both legs and some upper limb loss... unhealed wounds, lots of scaring... they need intense therapy, nursing, doctor input, the whole MDT... it's a no brainer that they need inpatient rehab'

Outpatient Rehabilitation:
'it's definitely a slower process... we tend to offer them once or twice a week'
'I can't really imagine some of the really complex patients being managed as an outpatient'
'they can still access a lot of that team but it's a little bit more... disjointed'

Ideal World:
I like to think that... we can provide in the NHS... a good quality service, that's standard around the country'
'in an ideal world... inpatients' is probably the best option for amputees'

Barriers:
'so in London we're very lucky, we've got inpatient beds... so Nationally, we know that's not the case'
'it's expensive, but if you look at patient outcomes & quality of life, I believe it outweighs the initial expense'

The full article can be found in the Disability and Rehabilitation Journal. It is open access.
https://doi.org/10.1080/09638288.2021.1970830

Personal postscript/reflection
Completing a research project

Completing this primary research study as part of an MSc dissertation was a lengthy process, however as inpatient rehabilitation for amputees is a passion of mine, it was rewarding to get this over the line for publication. It took approximately 9 months to complete the university dissertation module from 2019-20, and then another year to complete further edits and to change the formatting and content relevant for publication.

Having an academic supervisor who completes research regularly was very helpful in completing this, especially as it was my first publication. Although we are all keen to complete further research in the area of amputee rehabilitation, finding the time to do this is extremely challenging. Together with new and sustained service pressures post the covid 19 pandemic, this will be even more challenging. Having a structured way to complete this, in particular using educational opportunities such as MSc's and PHD's which will have protected study leave time associated with it, is a way I found helpful. Without having a dissertation to complete I am not sure I would have had the time available in clinical work time or in my personal life to complete this.

My advice for clinical research projects is setting out a realistic timeline from the outset and working with senior management to have structured time available to complete this. A 2 year aim from starting a research/ ethics application to publication would in my view seem the shortest period to be able to complete.

Reflection on study results and further research

I was surprised to see that although not directly asked questions about 'benefits' and 'limitations' participants tended to structure their answers in this way for both an inpatient and outpatient approach. It was also interesting that an inpatient approach was not only considered the gold standard for the complex amputees such as multiple limb loss, but for the majority of primary amputees. This included patients with unilateral upper limb, borderline prosthetic users, as well as unilateral trans-tibial amputees.

This was a small study, but a depth of understanding from participants with experience of both pathways was achieved. The overwhelming sense of healthcare inequality in amputee rehabilitation shone through and is a topic that needs continuing focus and attention.

Larger scale survey designs may be a way of looking at this topic in further detail to include a larger cohort of multi-disciplinary professionals throughout the UK. Together with a qualitative approach utilising focus groups and interviews investigating patient views about rehabilitation pathways available to them would complement the professional viewpoint.

The longer term effects from inpatient and outpatient rehabilitation models is also of great interest, however designing an RCT (randomised control trial) in this area would be ethically challenging. Therefore, a retrospective observational study looking at outcome measure results for both pathway options in the NHS may be an alternative approach for further research. This is a study design that has been utilised for American based research in this area.

... Post my maternity leave this year I am keen to explore some of these research options... anyone with me?

MY EXPERIENCE OF TRIALLING THE NEW OTTOBOCK KENEVO KNEE PROSTHESIS

Flo Mella, Band 5 Physiotherapist, Queen Mary's Hospital, Roehampton, London

I didn't expect to ever feel relieved to put on a 'shin-pad' again, which, let's be honest, is usually reminiscent of cold muddy hockey days. However, when it allowed me to trial the all new, singing and – quite literally – dancing Kenevo microprocessor knee, I was very eager to see if I could finally be a C-grade candidate! Note that the Kenevo has 4 modes: A, B, B+ and C, which transition from a locked knee to a free-swinging knee +/- an additional intuitive stance feature of 10-degree knee flexion, and finally to a free-knee yielding setting. This allows the Kenevo knee to keep pace with the user as their skills improve or decline.

Poised to go with my shin strapped to an iWalker (a device that allows weightbearing through the knee and acts as a rudimentary prosthesis I am swiftly told to trust the prosthesis and load my weight through my knee. I suddenly realise how odd this was; not least because my 5'2" self is looking down at 'my' shiny, slightly long metal pole replacement leg with a size 8 new left foot (no luck in finding a size 4!), being told to accept, integrate, and manipulate this foreign body part as my own. On the other hand, the fact that I even have a pseudo-knee disarticulation means I'm acutely aware of how frightening it might feel for my patients, who for the most part don't have a knee, a femur, or even a hemi-pelvis. Yet, here I am, totally discombobulated and I haven't even taken my first step!

"Move from hip extension and flex from the hip to initiate the swing, then land your heel and contract your glutes to extend over the leg"; I finally understand what medical jargon can come out of a bunch of physiotherapists! How do I translate this into a coordinated movement when my leg suddenly feels very heavy and alien? However, after a few strides in the parallel bars, "yes, I think I've got it!". It really helps imagining I'm kicking a ball – I'm definitely ready to try 'hands-free' (well, we all know which patient category I fall into!) … 1 step, 2 step, 3 step … trip; but incredibly the knee appears to have 'caught' me by pre-empting my fall. The Ottobock representative is keen to proudly point out this is of course a superb demo of the 'stumble recovery plus' mechanism. I felt both impressed and relieved with the Kenevo's intuitive nature to not only react to a near fall, but to also appear to use an inbuilt ability to grade the hydraulic yield according to the load placed through it; an impressive safety feature. I simultaneously have a growing empathy for those patients who want to run before they can walk, acknowledging that one really does learn from those near-misses, and they can even be an important part of increasing insight and the journey towards confidence. I'm also finally appreciating how annoying, yet maybe necessary, those constant petitions to "take a smaller step" are, as I completely over-estimate my now giant strides!

So, with my newly honed self-awareness I'm sure I can master the perfect stand-to-sit; how hard can it be? "Transfer your weight from forefoot to heel as you sit down and bend at the hips". Well, it turns out that this is another pretty challenging manoeuvre. Yet, again, I am impressed with the adaptive ability for the Kenevo to gradually grade the resistance in order to facilitate a smooth transition into sitting, with a slow and neat flexing of the knee.

Next-up, it's of course slopes! Here I glean an understanding of how heavy the leg feels, especially the amount of energy and concentration is required to kick and swing the leg through to obtain a safe mid-swing foot clearance when ascending the slope. However, descending the slope proves even harder, as I'm now in the free-knee yielding C mode and need to rely on the knee to yield as I load it. The trick really does seem to lie in me having the confidence to translate my weight forwards and trust the leg to support me.

All this is definitely easier said than done, and I'm gradually appreciating the importance of repetition, time, practise and patience that is needed in the rehabilitation pathway. Trialling the Kenevo has been an insightful opportunity for me to experience just a tiny fraction of the emotional and physical challenges of what wearing a prosthesis might feel like, let alone as a new life-long endeavour and challenge to surmount.

The question now is whether the new Kenevo knee is the choice MPK for the future. If so, when should we start introducing it to our patients to start embarking on mastering this undeniable art?

"Having to sing for my supper"

Patient's reflection: 48year old male, trauma amputee, hip disarticulation.

How did you feel about wanting to trial the Kenevo?

It was during lockdown, I felt very motivated to want bigger prospects. On my previous knee, I found it very upsetting that, although I could walk, it was such an effort, and I was very aware of my 'swaggering' circumducting gait with the fixed knee – I was not able to keep up with my children. I wanted to trial a leg that might be able to facilitate me managing some of the uneven Dorset terrain around where I live.

The fixed locked knee I had previously meant I felt very fearful of slopes, and it was such an effort to get up the stairs. I also want to be able to increase my standing balance as I haven't been able to tolerate just standing at the bar with my mates to have a pint.

What has been the biggest highlight from using the Kenevo?

When I was fitted and cast in my new socket. I hadn't realised how uncomfortable my previous socket had been as people would always just ask me "does it feel comfortable?". I used to say "yes" because I didn't know any different or what I was looking for. In fact, in my old socket, I felt a pin-point nerve pain on my 'camel hump' (ischium) but didn't know there was anything better. In my new bikini socket, I am so happy that I can stand for a long time without pain and am looking forward to drinking my beer standing at the bar! I have also realised that this socket enables me to sit in my wheelchair more comfortably too, with a much more neutral spine.

In summary, the 3 main benefits of the Kenevo have been:

1) *I have increased my standing tolerance and socket comfort to be able to achieve my goal of having a pint at the bar.*

2) *I am now able to walk down slopes without being frightened and being able to manage areas of my home environment more easily.*

3) *The effort and sweat pays off and I am now fitter and able to walk much further with a more fluid gait pattern.*

What has been the most difficult or challenging parts of your rehabilitation?

I found it extremely frustrating how much I varied day-to-day. Some days I thought I really 'got-it', and then other days I felt like I had gone backwards again. It was very tiring and difficult to try and achieve the non-vaulting gait pattern, and when I finally got it, the next day I lost it again. This was both physically and mentally very exhausting. I am aware that a lot of the time I didn't have the insight to know I was fatiguing which was where I would rush and make mistakes. Coordinating the movement with a flail arm on my contralateral side has meant it has been a huge challenge mastering my balance when I have needed to use the elbow crutch on my prosthetic side.

I was disappointed when I didn't just pick-up the non-vaulting pattern and had to concentrate so hard on saying to myself "heel down!" and "thrust and flick". I knew I was vaulting to protect the pain in my remaining ankle but now feel like I'm getting it finally!

The Kenevo initially really makes you "sing for your supper" but you definitely reap the rewards and see the benefits when you put in the hard work. Initially did you see how much I sweated! The leg felt so heavy, and I wasn't used to it, so I would sweat lots when trying to swing and kick the ball. But now I barely sweat and its enabled me to walk much further distances than my previous legs.

How has both experiencing wearing the prosthesis and working with a patient trialling the Kenevo helped shape my clinical practise?

I feel that appreciating the extent to which the **emotional and physical** elements of having a prosthesis are interlinked has helped me empathise with the impact this can have on a patient's progress and rehabilitation journey including fatigue, both physically and cognitively. I feel much more empathetic towards how frustrating setbacks can be and realise how important it is to manage those expectations. The importance of being patient and appreciating that there are setbacks which is a natural process and that the rewiring/redevelopment of established neural pathways takes **TIME**.

What is **comfortable?** – use of socket comfort score to be more effective. Learning to be more descriptive with our language to gauge what our patient might be feeling and offer a more objective measure of 'comfort'.

How do we use our **verbal cues** and language effectively? For example, what might 'speak' to one patient might not work for another – male patients might struggle with 'tucking your skirt under your bottom' analogy and therefore prefer to "poke your bottom backwards" to sit down (for hip disarticulation and hemipelvectomy patients).

My take home message is how beneficial it has been to seize any opportunity to emulate patient experience. It has been a hugely insightful means of growing my empathy and understanding of how to help prompt patients more effectively and in a more person-centred way.

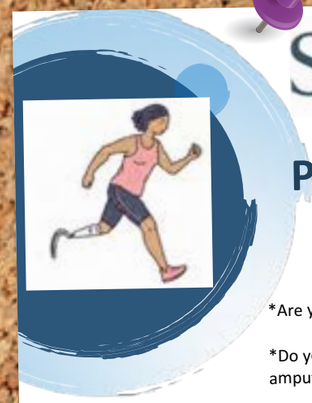
BACPAR BURSARIES AWARDED — MARCH 2022

EDUCATION:

Amanda Edmondson - for attendance at the 2021 Vascular Societies' Annual Scientific Meeting

A Message From Our New Social Media Officer, Gemma Boam:

I aim to help you all discover and learn new information, and it would be great to share ideas and to have group discussions. Plus, you can interact with people from other organisations! Please join us on our Facebook page "**BACPAR_Official**" or Twitter **@BACPAR_official**, and BACPAR members have exclusive access to a member only Facebook page BACPAR-Members Only. I look forward to seeing you all on our platforms!



UNIVERSITY OF Southampton

Physiotherapists Needed for MSc Research

*Are you working at a prosthetic rehabilitaion centre in the UK?

*Do you assess and treat primary patients following a lower limb amputation?

*Were you working during the Covid pandemic?

If yes, GREAT NEWS!! You are eligible to participate.

Study Aim

Aim of the study is to answer the research question;

What are the experiences of physiotherapists providing prosthetic rehabilitation to patients following primary lower limb amputation during the Covid-19 pandemic in the UK?

Potential Benefits

Participating in this study may improve the clinical care of patients with lower limb loss and guide future research and guidelines in prosthetic rehabilitation.

Participation Involves

- One interview over Microsoft Teams at a time/ date convenient to you.
- The interview will last approx. 30-60 minutes.
- Questions will be about your experience of providing primary lower limb prosthetic rehabilitation during the Covid-19 pandemic.

If interested, please contact:

Jennifer Fernandes

jef1n17@soton.ac.uk

18/3/22 Version 1

Ethics number; 70545

You may have noticed a change to the 'feel' of the journal this time? Well, we have gone fully recyclable! We have lost the glossy cover, so now the whole thing plus mailing envelope is recyclable.

VASCULAR SOCIETY
The Vascular Society for Great Britain and Ireland

SAVE THE DATE… it's BACPAR conference time again!

As part of the Vascular Societies' Annual Scientific Meeting

Wednesday 23rd – Friday 25th December 2022

At Hilton Metropole Hotel, Brighton BN1 2FU

More details to follow

BRITISH TRIATHLON

'CAN'T YOU?' CAMPAIGN

British Triathlon – the Federation whose members are the Home Nation's Associations of Triathlon England, Triathlon Scotland and Welsh Triathlon – has launched its 'Can't You?' campaign in search of the next generation of Paratriathletes into its talent programme.

The campaign heard from disability activist and TikTok star Lucy Edwards who spoke with pathway athlete Oscar Kelly, as well as Paralympian Lauren Steadman and Paralympics presenter Arthur Williams who spoke with fellow former marine and Paratriathlon star Joe Townsend. Find these on the British Triathlon's YouTube Channel among their recent videos.

If you're interested in finding out more, you can apply via the British Triathlon Website: **https://www.britishtriathlon.org/**

NEWS ABOUT EVENTS FROM ISPO UK

We have tentative plans to run the Annual Scientific Meeting over 6th + 7th October face to face venue tbc. Suggest that members keep an eye on the ISPO UK website **www.ispo.org.uk**

Dates will be posted as events are confirmed – look out for a **Research Course (June 2022)** and also the **Special Interest Group-Upper Limb Difference and Acquired Amputation**.

BACPAR is an affiliate organisation and therefore BACPAR members can benefit from reciprocal member rates for events run by ISPO UK and vice versa.

BAPO
www.bapo.com

NEWS FROM THE BRITISH ASSOCIATION OF PROSTHETISTS AND ORTHOTISTS (BAPO)

"Big news for us is the Conference – face to face in Coventry – 29-30th April. We have worked hard to ensure plenty of prosthetic content.

Highlights include:

- Keynote address: Planned changes in prosthetic service provision in the UK following the review of prosthetic services Colonel Alan Mistlin CBE
- Keynote address: Team delivered rehabilitation Dr. Rhodri Phillip
- Several papers on Telehealth for AHPs

For more information about BAPO, and the conference, please visit www.bapo.com or search for British Association of Prosthetists and Orthotists on Twitter, Facebook or LinkedIn to keep up to date with BAPO's news".

And BAPO are introducing BACPAR to Sandy Sexton, their new Education and Practice Development Officer who some of you may already know? We look forward to making links with her via our Officers as we very much have shared values and aims! [Editors]

"Sandy's role is to support prosthetists and orthotists to meet the needs of patients through sharing, strengthening, advancing and extending practice. Sandy's first tasks will be to work on BAPO's career information and provide feedback on the many ongoing initiatives that are being developed by BAPO's education committee. Sandy will also provide support for a new project, which is being developed as part of a wider Allied Health Professions (AHPs) initiative, to identify workforce reform priorities.

Commenting on her new role Sandy said: "I am keen to engage with students, apprentices, prosthetists, orthotists, assistants and technicians who are at different stages of their career. I am looking forward to linking with employers, educators and service users to help BAPO strengthen relationships and partnerships to support the strategic direction of the organisation."

Sandy is a consultant prosthetist/orthotist with a rich experience in the health, rehabilitation and education sectors. She has a strong interest in the development of services for people with a disability and has a strong belief that their care should be provided by appropriately trained and skilled professionals".

KINETIC CONTROL COURSE AT PACE REHABILITATION

Lincoln Blandford, Physiotherapist, Head of Education, Comera Movement Science and Jason Robinson, Physiotherapist Pace Rehabilitation

Twelve clinicians recently attended the Kinetic Control (KC) course 'Identifying and Retraining Uncontrolled Movement in People with Lower Limb Amputations'. Running over three days in October and November 2021 at Pace Rehabilitation, Stockport, the course was led by specialist Physiotherapist in amputee rehabilitation Louise Tisdale with additional support from both Comera Movement Science's Head of Education, Research, and Development, Lincoln Blandford and Director of Clinical Education, Dr Sarah Mottram.

Kinetic Control (Lincoln Blandford)

Established in 1995, Kinetic Control is both an extensive range of practitioner-focussed education and a patient management approach that places movement assessment and retraining at the heart of a systemised clinical reasoning process. The perspective that movement has value within patient management plans continues to be championed by professional organisations (e. g., American Physical Therapy Association, 2019). Yet, motor behaviour is complex; not only at the biological scale (e. g., neurophysiology, biomechanics) but also in the differing perspectives within and between professional disciplines on how movement should be appraised and influenced to support patient outcomes. Where does the KC approach sit within this vibrantly contested space?

It has been more than a decade since Skjaerven et al. (2008) stated the term movement as possessing over 60 different meanings. When we hear a clinician/practitioner suggest they have adopted a 'movement' approach, which of the more than five dozen meanings of movement are they assessing? The model within Figure 1 reframes this question. Adapted from the original work of Karl Newell (Newell, 1986) and later modified by Mottram and Blandford (2020), the model is sensitive to multiple interacting factors or 'constraints' that can influence motor behaviour. The model presents motor behaviour as emerging from the interaction of constraints within three distinct domains; the task, the individual, and the environment; i. e., a particular person, performing a particular activity, in a particular place. In the case of sit-to-stand, practitioners may place focus on patients' ability to perform a specific number of repetitions within a set time. Observing an increase in repetition number may indicate an improvement in physical capacity, permitting greater resilience to the demands of the world. Additionally, practitioners may also focus on 'how' the task was performed in accord with the notion of 'movement quality'. Such an approach may involve qualitatively rating features such as alignment (e. g., knee in respect to foot placement) and relative contribution of body regions (amplitude of hip compared to knee motion). Literature exploring the relationship between 'how' a task is executed and

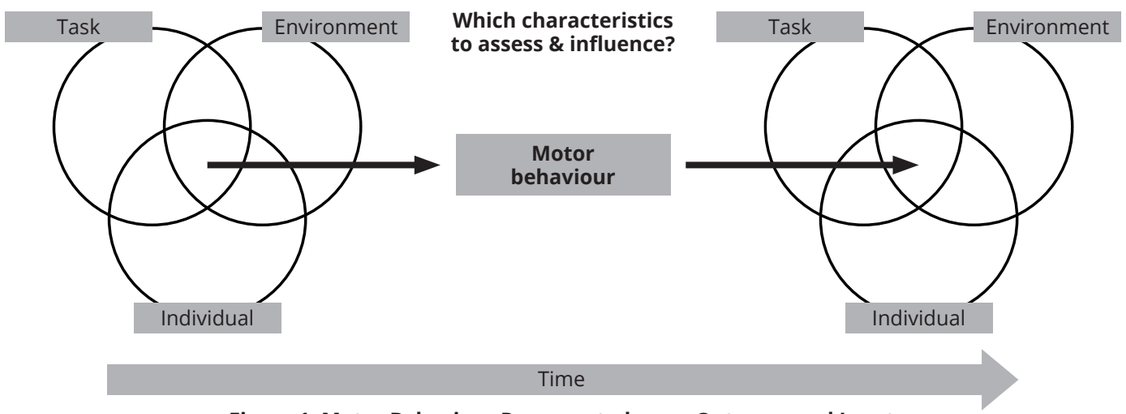


Figure 1. Motor Behaviour Represented as an Outcome and Input to the Interaction of the Task, Individual, and Environment.
Adapted from Mottram and Blandford (2020).

the likelihood of onset (Bates et al., 2020; Roussel et al., 2009;), acute presence (Gwynne & Curran, 2018; Lewis et al., 2018) and subsequent management of presentations (Mottram et al., 2019; Wilson et al., 2018) continues to build.

An emphasis on 'movement quality' is fundamental to Kinetic Control's content, supplying a bedrock to the four days of the Lower Limb Amputee course. Yet 'quality' is a synonym for both 'excellence' and 'property'. Indeed, the Kinetic Control approach also considers another 'characteristic' of movement. Augmenting the observation of task performance, the KC approach also questions whether patients can display choice in their movement. Choice in 'how' a task is executed is proposed as an indicator of the status of an individual's 'Movement Health' (Dingenen et al., 2018; McNeill & Blandford, 2015). In an optimal state of Movement Health, an individual would be able to demonstrate 'choice' in not only task selection (the 'what' is performed) but also in task execution ('how' it is performed). The latter would suggest that any possible combination of joints and body segment configurations (strategies) could be employed to achieve a desired outcome; e. g., during a sit to stand, the individual may choose to place greater emphasis on the hip than the knee as they leave the chair. This strategy would represent just one of a multitude of possible variations to completing the task. The day-to-day reality is of course very different; every individual, patient or otherwise, will be on a continuum of possessing choice in both the 'what' and 'how' of movement. Yet, reliance upon a limited number of strategies (reduced movement variability) by which to perform a task is hypothesised as linked to both the presence and onset of clinical presentations (e. g., Hamill et al., 2012; Nordin & Dufek, 2019). The KC approach seeks to identify which strategies the person cannot prevent utilising even when supplied the chance to vary; to coin a term, 'what is the status of an individual's 'vary-ability?'. These lost movement choices (Mottram & Blandford, 2020) are revealed through a systematic testing process and then appraised within a clinical reasoning framework. Motor learning principles are applied within retraining interventions that seek to restore these lost choices to the person's range of possible strategies; greater ability to vary, at will.

Thoughts on Kinetic Control and amputees

Curiosity may be raised as to how the Kinetic Control approach would be viewed through the lens of practitioners working with the amputee population; fascinating insights were offered by the delegates. "Kinetic Control teaches you to think about movement from a different perspective. One key concept is to consider the 'loss of movement choices' a person has encountered resulting of their situation. I have found this a very useful to help explain movement foundations to clients – amputees have no choice but to change the way they move. However, through guided rehabilitation we can give them some choices back and make the way they move as biomechanically normal and functional as possible. Cognitive retraining of healthy movement is equally as important as muscle strength when aiming to make long term changes to a patient. It's key to maximise the healthy movement options available to our amputee patients to help reduce the chance of pain in the long term due to the result of limb wearing. By assessing a wide range of movements and linking this to gait deviations we can pick out the one, most important thing; just focussing on one exercise at a time avoids overloading our patients, and therefore hopefully increase engagement! Working with the patient models was great and despite our person initially appearing to walk very well we were able to identify lots of basics to work on with him which performing the tests helped to identify; I might otherwise have overlooked these.

Reflection on the training (Jason Robinson)

There was a good mix of experience of the course delegates, who were all clinicians regularly working within prosthetic rehabilitation from both NHS and private settings. The combination of the content provided by Lou, Lincoln and Sarah and the insights of the delegates made for a very enjoyable and engaging learning experience over the three teaching days. The combination of theory and practical training with the models, all lower limb prosthetic users and current patients of Pace, provided the opportunity to apply the skills learnt with ample opportunity to ask questions and refine the technique learnt.

The concept of increasing movement options for lower limb prosthetic users really resonated with me as I feel improving movement quality of lower limb prosthetic users is an important factor in enabling them to achieve their full potential when using a prosthesis. The training offered me new insights into assessing patients, their walking and general movement, whilst also providing alternative ideas for retraining their movement quality.

The training was provided in two teaching blocks with a month between the first and second teaching sessions. This was great as it allowed time for the content to sink in and be applied clinically. I found this helpful as I was able to apply the learnt content with patients presenting with various lower limb amputations levels. Assessing which elements of the patient's movement quality were limited by their prosthesis or injuries and which elements could be addressed with therapy was interesting and I felt it helped my clinical reasoning of my treatment.

The testing and training techniques were easy to incorporate into practice during the initial periods of working with new patients and allowed a more in-depth assessment of the patients' movement quality. Interestingly whilst working with some of my established prosthetic users who function and mobilise well, I found they really enjoyed the addition of movement control retraining in their sessions. It presented a challenge to further enhance their mobility as well as a challenge to learn to do the tests well. As the other delegates and I found out during the training some of the tests are pretty tough even for those that think they move well.

Reflecting on the course 6 months later I have incorporated the principles learnt into my practice, applying them more frequently than I would have originally anticipated. It has helped to enhance my assessment and treatment of lower limb amputees at various stages of their rehabilitation journeys.

'Identifying and Retraining Uncontrolled Movement in People with Lower Limb Amputations' will be running in the UK again over the next 24 months. Please contact lincoln.blandford@comeragroup.co.uk for further details.

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Are you interested in becoming a Kinetic Control Tutor?

Contact lincoln.blandford@comeragroup.co.uk for further details.

ADAPT CSP NETWORK INTERNATIONAL CONFERENCE 2021 – EVIDENCE BASED RESEARCH IN LMICS. A ROUNDUP OF THE DAY WITH A FOCUS ON AMPUTEES

Amy Souster, Physiotherapist, Research Officer on ADAPT committee and lecturer, University of Plymouth

The ADAPT CSP network is a physiotherapy network with an interest in international work and global health. We ran our second international conference on 26th November 2021 which was widely attended by therapists both in the UK and internationally.

We had over 60 attendees on the day and the conference was recorded allowing people to revisit it via our YouTube channel.

Link to part one (including Cornelia Barth's presentation) **https://youtu.be/kwsmcUQW9ws**
Link to part two **https://youtu.be/8QHxX8REWUE**

The day was focussed around the topic of 'Evidence Based Research in Lower Middle Income Countries (LMICs)' with some incredible speakers from international backgrounds sharing advice for getting started with research, things to consider with research and their own research undertaken in different global settings.

We were lucky enough to have eight amazing speakers sharing their knowledge and experience of undertaking research in LMICs.

Professor Anne Moseley	How to Access Evidence related specifically to LMIC
Anupa Pathak	PhD researching cross-cultural outcome measures
Professor Michel Landry	Financial implications of researching in LMIC
Professor Tom Shakespeare	Rights-based rehabilitation
Cornelia Barth	PhD researching amputee gender access in conflict settings
Ruthann Fanstone	PhD researching burns rehab within Bangladesh (experience of research working in the field).
Dr Emer McGowan	Researching rehab access and treatment for Refugees
Dr Giulia Barbareschi	Assistive Technology, data and evidence for LMIC

The speaker most aligned with BACPAR's work was Cornelia Barth who discussed her research in LMICs with a focus on conflict and post conflict areas with a further focus on amputees and rehabilitation staff. The other speakers and write up will be available via the ADAPT CSP webpage **https://adaptcsp.co.uk/**

Cornelia discussed her PhD involving a mixed methods approach working through four separate but linked research studies and publications. She has completed three sections and is currently working on the fourth study.

The beginning of her PhD focus was on women and girls and how they are affected by conflict and issues due to previous research focus being often on men during conflict. She highlights the medical issues following conflict can mainly relate from fragile health systems due to effects of the crisis on the already under funded health systems.

Study 1 – Cornelia discussed the prevalence of preventable conditions such as diabetes and possible reasons for this being the lack of focus on preventable conditions due to fragile health systems dealing with conflict so less urgent clinical issues can subsequently be ignored. She then went on to research if there

was equal opportunities or access to health services between women and men or if there was less uptake or access from women to the offered services. She reviewed this through the databases from the ICRC and published a paper analysing the clinical characteristics of people attending rehabilitation in countries affected by conflict. The conclusion of the paper was that there was a much lower attendance rate of females to males accessing rehabilitation highlighting a need to further understand why women and girls were not accessing rehabilitation in these areas.

Citation: – Barth CA, Wladis A, Blake C, Bhandarkar P, O'Sullivan C. Users of rehabilitation services in 14 countries and territories affected by conflict, 1988-2018. Bull World Health Organ. 2020 Sep 1;98(9):599-614.

Link to study 1 – **https://www.who.int/bulletin/volumes/98/9/19-249060.pdf** (open access)

Study 2 – Her subsequent study involved looking at amputations and how people accessed services over five countries (Afghanistan, Cambodia, Myanmar, Sudan and Iraq) with the highest numbers of amputations in the ICRC database. There was not enough information to determine male or female differences in the reviewed data. However, amputation causes were documented which Cornelia and the research term separated into traumatic (73.4%) and non-traumatic (26.6%) amputation causes, with the majority of non-conflict related causes being highly proportionate for diabetes related causes. A large proportion of the traumatic amputation causes were related to landmines, with both diabetic reasons and landmine reasons both being issues facing a fragile health system outside of direct conflict causes. The paper explored data showing age at amputation and age on accessing rehabilitation services which demonstrated gaps in all the countries. This paper concluded the after effects of war/conflict would last decades post conflict and the amputation causes could be both directly related to conflict but also indirectly from fragile health systems and lack of rehabilitation post amputation and lack of rehabilitation and health condition management to prevent non-traumatic amputation causes, primarily diabetes.

Citation: – Barth CA, Wladis A, Blake C, et al Retrospective observational study of characteristics of persons with amputations accessing International Committee of the Red Cross (ICRC) rehabilitation centres in five conflict and post conflict countries, BMJ Open 2021;11

Link to study 2 – **https://bmjopen.bmj.com/content/11/12/e049533** (open access)

Study 3 – This involved focus groups of in-country physiotherapists exploring their views and perspectives on barriers and facilitators for their patients accessing rehabilitation and for them to deliver it. The study used thematic analysis to analyse thoughts from physiotherapists working in LMICs. Outstanding themes were workforce development and advocacy and awareness which overlapped with an overarching theme of 'professionalism'. Their conclusion demonstrated the motivation of physiotherapists to be integrated into prevention of health conditions and to work towards the UN sustainable development goals, but that there is a lack of drivers for this and support for this in the opinion of the participants involved in this study.

Citation: – Barth CA, Donovan-Hall M, Blake C, Jahan Akhtar N, Capo-Chichi JM, O'Sullivan C. A Focus Group Study to Understand the Perspectives of Physiotherapists on Barriers and Facilitators to Advancing Rehabilitation in Low-Resource and Conflict Settings. International Journal of Environmental Research and Public Health. 2021; 18(22)

Link to study 3 – **https://www.mdpi.com/1660-4601/18/22/12020**

Study 4 – this is ongoing and aims to look at service users and service providers (physiotherapists) in LMICs with a qualitative methodology to further research barriers and opportunities for progressing rehabilitation in LMICs.

Follow Cornelia's work using her twitter handle **@neltexts** or via her youtube channel **https://youtube.com/user/thespacekid**

Personal postscript – As a physiotherapist with an interest in amputee rehabilitation in LMICs, I am currently writing my MSc thesis on amputee rehabilitation opportunities in LMICs. This talk by Cornelia really relates to my interest area and research focus at this time. I have volunteered in Bolivia and Guyana as a physiotherapist working with amputees and therapists providing rehabilitation so this topic very much resonates with me. Cornelia highlights and explores a lot of important concepts here around healthcare systems being sustainable and functional for long term issues outside of the usual considerations of war and conflict. Especially around 'preventable' diseases such as diabetes, which continues to be a global issue which; as amputee therapists, we are all too familiar with. Access to rehabilitation and prosthetics continues to be a complex area in LMICs and to some extent in High Income Countries as well with focus often being on low-cost products which may not then be fit for purpose for the people requiring them. Amputee rehabilitation is an area where physiotherapists can make a huge difference and acquisition of prosthetics can make a life altering difference to an individual in regards to physical function and income, as well as acceptance in their communities, and quality of life.

I do hope you will be able to access and watch Cornelia and all of our speakers from the day and if you have an interest in work overseas please get involved in the ADAPT CSP network as we are all deeply involved in global rehabilitation goals and promoting equal opportunities and healthcare access for all.

Twitter handles
@ADAPT_CSP for ADAPT network
and **https://adaptcsp.co.uk** for website
@AmyLouSous for my twitter handle

CAN A MODIFIED BLART BE USED TO PREDICT DISCHARGE DESTINATION AND HOSPITAL LENGTH OF STAY FOR PATIENTS WHO HAVE UNDERGONE A MAJOR LOWER LIMB AMPUTATION?

Stephanie Pirrazzo and Elizabeth Bouch, Physiotherapists, Manchester University Foundation Trust

Introduction

There have been increasing demands on acute services and pressures for hospital beds leading to a need to maximise patient flow through acute hospitals, by facilitating earlier and quicker discharges. In order to achieve this Physiotherapy and Occupational therapy assessment and treatment are vital. The recent document published by the Vascular Society (Provision of Vascular Services, 2021) highlights the importance of a dedicated physiotherapy and occupational therapy led amputee rehabilitation team to help provide the best patient outcomes. The physiological benefits of early physiotherapy intervention post-surgery are clear, including a reduction in postoperative complications and maintenance of strength and function (Sullivan et al., 2016). Early therapy intervention can also enable timelier clinical decision making around discharge and subsequently prompter referrals to intermediate or community services. This means quicker discharge of patients from acute inpatient beds, maximising flow and ultimately reducing hospital length of stay (LOS). Following major lower limb amputation patients' dependency levels and rehabilitation needs can often be varied depending on previous level of function and past medical history. A method of helping to predict discharge destination and LOS of these patients could help facilitate these clinical decisions.

The recent reorganisation and transfer of acute vascular services to Manchester Royal Infirmary (MRI), and the subsequent increase in vascular patients within the hospital has resulted in an expansion of the acute vascular therapy team. This includes an increase in rotational members of staff with minimal prior vascular therapy experience. Therefore, a tool to aid clinical reasoning of discharge plans or further rehabilitation and care needs could support more inexperienced members of the therapy team in their decision making of therapy interventions and plans.

At present there are no outcome measures which can be used for patients following major amputation to help predict LOS, rehabilitation potential and discharge destination. The Blatchford Leicester Allman Russell tool (BLARt) (Bowrey et al., 2019) is a preoperative scoring tool that predicts the probability of walking with a prosthetic limb after a major amputation. Depending on their score patients fall into 3 groups; Functional use of prosthetic limb (≤12, green group), Transfers only (13-19, amber group), No use (≥20, red group). We had some prior experience using the BLARt with patients pre-operatively to aid decision making regarding level of amputation. Given the predictive aspect of this tool and it's use within this specific patient population the BLARt seemed to have the most potential to be a used as a post-operative indicator for discharge destination.

Our aim was to investigate if the BLARt could be modified to predict discharge destination and LOS of patients following major lower limb amputation.

Method and Results

Initial data was collected on 46 patients following major lower limb amputation over an 8 month period. Data collected included BLARt score, LOS, discharge destination and reason for discharge delay. BLARt was calculated within a week post major amputation. The BLARt score for each patient was analysed to determine whether a higher BLARt score correlated to a longer LOS and to identify any patterns or trends in discharge destination between the three groups which is shown in Table 1.

Table 1

BLARt score	No Patients	Mean LOS (days)	Median LOS (days)	D/C destination
Green (≤12)	23	23	14	Home 74%
Amber (13-19)	20	20	15.5	Home 45% ICT/Repat 45%
Red (≥20)	3	19	17	Home 66%

Results suggested that a higher BLARt score did not necessarily correlate to a higher LOS, LOS was actually seen to be relatively similar between all three groups. However, differences can be seen for the most common discharge destination, only 45% of patients within the amber group were discharged home compared to 74% of patients within the green group. Instead, 45% of the amber group were discharged to further rehab in a non-acute setting (Intermediate Care units, ICTs). This indicates that the green group were more physically able and likely to rehabilitate well in an acute setting and progress to a suitable level to be discharged straight home from hospital. Whereas the amber group were likely to have a higher dependency and require longer more intensive therapy input to progress, often requiring further referral to a non-acute rehabilitation setting. Small numbers of patients (Total of 3) within the red group made this group difficult to analyse, however, review of the patients in this group highlighted that they were less functionally independent and required significant social service input or 24-hour care. Therefore, when utilising the BLARt as a discharge and LOS predictive tool, groups could be classified as 'likely to be discharged home from hospital' (green group), 'likely to require further rehabilitation or transfer of care' (amber group) and 'Likely to require 24 hour care or maximum social services input' (red group).

Interestingly, from analysis of common discharge delays and closer review of the data it was apparent that the BLARt had some limitations within this context as it did not account for certain factors that have a significant impact on acute LOS; such as poor engagement with therapy, complex social situations or those with poor rehab potential. For example, patients of no fixed abode requiring rehousing services or those requiring large packages of care, social services input or moving and handling risk assessments and equipment. This could potentially explain why LOS between groups was similar as data was skewed by these patients. To account for these issues and try to improve the BLARt's ability to more reliably group patients and correctly predict discharge destination it was modified by adding further categories relating to pre amputation functional ability, social support, housing/environmental set up and family support. Post-operative therapy engagement and further special risks relating to vision and other MSK issues were also added.

To assess the effectiveness of these modifications and further assess the now modified BLARt's usefulness as a predictive tool additional data was then collected for a further 104 patients following major lower limb amputation between July 2020 and June 2021. Data collected included BLARt score and modified BLARt score alongside LOS, discharge destination and reason for discharge delay. Modified BLARt score was calculated 48-72 hours post amputation. Following the data collection, based on data patterns and clinical experience the BLARt grouping parameters were then adjusted to Green (≤17), amber (18-24) and Red (≥25). See table 2 and 3

Table 2

Modified BLARt	No Patients	Mean LOS (days)	Median LOS (days)	D/C destination
Green (≤17)	55	19	14	Home 76%
Amber (18-24)	42	25	22	Home 43% ICT/repat 36%
Red (≥25)	7	28	23	24 hour care / Assessment bed 71% Home 14%

Table 3

BLARt	No Patients	Mean LOS	Median LOS	D/C destination
Green (≤12)	44	21	16.5	Home 70%, 14% ICT
Amber (13-19)	54	22	17	Home 50% ICT/repat 21%
Red (≥20)	6	28.5	22.5	24 hour care 17% Home 50%

Results showed that modifications had successfully altered the distribution of patients across the 3 groups when using the modified BLARt compared to the original BLARt, helping to correctly capture relevant information that impacts a patient's rehabilitation and discharge. This is demonstrated by an increase in percentage of discharge to the expected discharge destination within each group, as well as an increase in LOS in groups with more dependent patients. Results support that the classification of the 3 groups and the expected discharge destination for each group was appropriate.

Discussion

The BLARt was successfully modified as a LOS and discharge destination predictive tool locally within an acute setting. Modifying the BLARt to include constructs relating to common discharge delays or factors that impact a patient's ability to participate in rehabilitation improved its predictive ability to correctly predict discharge destination. There are currently high demands upon acute, intermediate and community services. This impacts waiting times for inpatient rehabilitation, packages of care and provision of essential equipment. Earlier identification of a patients likely discharge destination or ongoing therapy and social needs can facilitate earlier patient discussions around discharge which could lead to a reduced LOS and improvement of patient flow through acute services.

The original BLARt was validated to predict suitability for prosthetic use, however, this does not stand for its use postoperatively to predict discharge destination and the modified version has not been validated. However, anecdotally we have found that in a local setting using this modified BLARt can still be a useful addition to therapy assessments within the first few days following major amputation.

Predicting discharge destination helps to initiate the identification and discussion of patient rehabilitation goals and helps tailor early rehabilitation and physiotherapy sessions. For example, focusing on replication of the home environment and specific tasks or transfers related to the home environment for those patients that are likely to be discharged straight home. Alongside prioritising environmental access visits or home visits for those patients likely to be discharged straight home. We also found that completing the modified BLARt was a useful process for more inexperienced members of the therapy team to aid their confidence in their decision making, initiate earlier discussions with patients around short- and long-term goals and discharge destination and help manage patients' expectations around discharge. This not only has a positive impact on patient flow but also on patient experience and care. At MRI we plan to continue the use of the modified BLARt and will aim to review data to see if a positive impact has been made on hospital LOS.

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CASE STUDY – TRANSTIBIAL AMPUTATION DURING THE COVID PANDEMIC

Mary Tebb, Physiotherapist, Dorset Orthopaedics

This is a case study of an older gentleman who sustained a transtibial amputation following a motorbike accident in the summer of 2020 during the Covid pandemic. NHS provision was delayed and prosthetic provision delivered privately by Dorset Orthopaedic.

SUMMARY

Private prosthetic provision is not uncommon following traumatic accidents involving limb amputation. However, NHS options are usually explored initially in order to minimise costs relating to any potential legal claim. During the Covid pandemic, the NHS struggled to provide a full prosthetic and rehabilitation service with many staff being redeployed to the frontline. Despite a few significant challenges along the way, Dorset Orthopaedic were able to support this gentleman to achieve his goals of walking again and riding his trike.

THE INDIVIDUAL

Mr X was riding his motorbike when he was involved in a head on collision with a car driven by a young man. As a result, he sustained significant injuries to his right leg and was airlifted to his local trauma centre where he underwent a transtibial amputation.

Prior to the accident, Mr X had been working as a part time commercial driver in his early seventies. He enjoyed walking his dog, gardening and DIY as well as riding his motorbike socially.

INITIAL ASSESSMENT AND PROGRESS

Mr X was sent to Dorset Orthopaedic by his case manager as he was unable to be seen in his local NHS centre until the December of that year. He was first assessed in September 2020 and immediate plans were made to provide him with a prosthesis and with rehabilitation. Prosthetic fitting was challenging due to the knee on his amputated side being osteoarthritic. This meant that it was sensitive around some of the areas where bodyweight would be taken, particularly the joint line. Having not taken any weight through this joint for a few months and then starting to walk again also meant that the knee became quite sore for a few weeks until it settled down. This was probably due to a loading response through the articular surfaces of the joint.

Lateral view of the knee showing fixed flexion deformity. Acupuncture formed part of his physiotherapy treatment to assist in pain control.

His rehabilitation sessions were quite intense with a variety of activities each time undertaken. These included specific strengthening, core and balance work, acupuncture to the right knee, sessions on the Alter G anti-gravity treadmill and outdoor walks on undulating terrain.

Trunk strengthening sessions lying and standing with the aim of improving postural stability when standing.

Mr X's rehabilitation did not go smoothly and prior to his last two rehab days, he developed pain in the left shoulder and arm just before Christmas which was most likely due to prolonged use of walking aids. Clinical diagnosis was strongly suggestive of nerve root compression. Mr X and everybody involved in his care were rightly frustrated by this setback, particularly as the second wave of Covid then took a hold and Mr X had to wait for investigations in a significant amount of pain. At this point he was using crutches, but was

Alter G anti-gravity treadmill sessions were useful to off-load the knee whilst walking continuously and focusing on gait quality.

unable to bear weight on his left arm due to pain and almost complete loss of hand function. A pair of gutter crutches allowed some limited walking around the house during this time. Crutches were still required on and off due to the knee pain, although this was now settling well.

Unfortunately, he was never diagnosed with a reason for his left arm pain and loss of hand function. Formal investigations were delayed despite the loss of hand function and numerous diagnoses were made via his GP including a frozen shoulder, tennis elbow and carpal tunnel syndrome. Carpal tunnel surgery was performed with limited change in the hand function and visits to a local physiotherapist were partly helpful. Over a few months, his pain settled and some hand function returned to enable him to recommence with us.

A further six half days taken in late spring of 2021 enabled Mr X to achieve his goals with us. Rehabilitation focused on restoring a good prosthetic gait without the need for walking aids and at an appropriate speed.

When a patient starts rehabilitation with us, we develop a problem list and set goals for them to work towards. This problem list was developed in November, prior to the onset of the arm pain. Most patients state their goal is to walk again and hence we list those factors that are hindering them from achieving this. In Mr X's case, his problems were as follows:

Problem List

1. Weak musculature both lower limbs but especially the right side.
2. Poor balance, dependent on walking aids for support.
3. Stump pain (scoring 6/10*).
4. Phantom limb pain – crushing pain in foot (scoring 9/10*).
5. Right knee pain (scoring 7/10*) for a few paces on starting to walk.
6. Reduced cardiovascular capacity, managing 80m over a two-minute walk.
7. Altered gait pattern with longer stride on the right side, using one stick and managing half mile.
8. Reduced core strength – unable to sit up from supine position.
9. Not engaging in previously enjoyable recreation, such as DIY and motorcycling.

*Scored on a visual analogue rating 0-10 with 10 being worse pain imaginable and taken on an average over the past week.

Goals were then set to target each of the problems with the aim of walking largely unaided. We also took a number of outcome measures to demonstrate where progress is being made.

Outcome Measures

The objective measures used for this patient demonstrate improvements in speed and agility when changing direction. They are quick to do and useful to inform progress to all interested parties.

Objective Measures	11/11/20	19/05/21	02/07/21
Timed up and go – a brief mobility timed test	11.4s	8.5s	6.16s
2 Minute Walk – distance walked over 2 mins	80m over 2 mins	125m over 2 mins	132m over 2 mins
4 Square Step Test – a brief mobility timed test	17.5s	-	9.78s

Subjective measures inform us how the patient feels he is doing in respect of his functional ability, wellbeing and pain. The Health and Wellbeing score is another visual analogue score scored as a percentage. The LCI-5 is a common amputee subjective score well documented in the BACPAR Outcomes Tool Kit. Pain and confidence are further useful objective scores and are scored here on an average over the past week.

Subjective Measures	11/11/20	19/05/21	02/07/21
Health and wellbeing score	65%	-	90%
LCI-5 – a functional ability score	40	-	56
Pain – stump	6	0 (occasional stabs)	5
Pain – phantom	9	9 daily	7
Pain – right knee	7	2	0
Confidence in foot	70%	90%	90%
Perception of gait normality	30%	90%	90%

We usually advise amputees that they should be fairly competent walkers by the end of a year, with some further gains in the following year. Mr X achieved his goals within the year and is now enjoying life again with his wife and dog. He has not returned to work but is considering some longer motorcycle holidays in the near future.

SUPERHERO SERIES

We have heard from Superhero Series about a forthcoming event

Superhero Series is the UK's one & only disability sports series for the everyday Superhero! Their mission is simple: to create fun, full-throttle mass-participation sports events where people with disabilities – AKA Superheroes – call the shots & don't have to worry about cut-off times or equipment restrictions.

The Event – Superhero Tri, 20th August 2022 at Dorney Lake, Windsor

There are three epic distances to choose from and many super ways to take part in these unique tri challenges, from taking on all three stages (a swim, cycle and push/run for you tri newbies out there) to sharing the fun in a team relay!

Who can join the mission? Anyone who considers themselves to have a disability of any kind can take part. You can fly solo & be your own hero or unite with your friends & family to complete your mission.

How: This mission can be completed however you see fit. You can skate, wheel, run, push, cycle & anything in between! All kinds of gadgets & gizmos are SUPER encouraged!

Dress code: A Superhero outfit... of course!

Find more information at: **https://superheroseries.co.uk/**

EXPLORING A ROLE FOR PHYSIOTHERAPY IN UPPER LIMB REHABILITATION IN SCOTLAND

Grace Ferguson, Physiotherapist, WestMARC (West of Scotland Mobility and Rehabilitation Centre), Glasgow

January 2021 started with a job offer. I was given the opportunity to return to WestMARC, the largest prosthetic limb fitting centre in Scotland. After a couple months of settling back into my dream job, I was asked if there was anything in particular I would like to express more interest in. I took this opportunity to discuss people with upper limb loss and the fact that they don't have any Physiotherapy input at present. My manager was more than happy for me to explore this further and identify if there was a gap within our service.

A whole new world:

Not having a clue where to start, I decided to have a discussion with our OT and asked if they felt there was a need for Physiotherapy input. From that discussion it turned out that there was in fact a patient who was struggling with acute neck pain which was causing headaches. The OT referred the patient to me and I was overwhelmed at what to do. This was a straightforward assessment, so I grabbed a blank piece of paper and just went from there. After gathering a standard subjective assessment, I decided to focus their neck pain and headaches. Postural advice was provided along with a few exercises focusing on scapula setting, pectoral stretches and nerve glides. The patient returned 10 days later with no headaches and was now reporting increased movement when turning their head to check their blind spot. They were shocked that the exercises had worked in such a short time and this prompted them to mention other aches and pains they had. I decided to create a Physiotools programme and asked them to download the app. They reported being forgetful and found the daily reminders helpful. They have since returned to full time work as a joiner.

Not sure what direction I should next move in, I decided to reach out to Mary Jane Cole as she works closely with the Scottish Physiotherapy Amputee Research Group (SPARG) in her current capacity as BACPAR rep to SPARG. At the time, I didn't realise that Mary Jane had a keen interest and a wealth of experience in upper limb rehabilitation; I'd contacted her asking to be put in touch with someone who could help with my questions. Mary Jane kindly responded with useful articles she had been written on the topic, and also put me in touch with Kate Lancaster who replaced her when she left Roehampton. Mary Jane emphasised the importance of Pilates, which I already have a keen interest in. Reading through the documents it seemed to focus on increasing postural awareness and avoiding overuse injuries, as well as maintaining joint range of motion and carrying out strengthening work. Kate was able to signpost me towards useful resources, as well as highlighting the joint role in problem solving tasks along with ergonomic assessment of prosthetic limb use.

After overcoming the first established assessment, I decided to venture into the world of primary upper limb loss. I found this challenging as I wasn't really sure what I was going to offer at an initial assessment. I sat and listened to what the other professionals in the room asked. Between the Prosthetist and the OT, they covered the majority of the questions that I would normally ask in a subjective assessment. Additional questions I asked related to falls, balance and pain. This particular individual mentioned they had been walking into doorframes. For the first time I realised that their depth perception was affected; this had never crossed my mind before and prompted me to consider a prescription point of view. Having very limited knowledge in upper limb prosthetics, I decided the best person to speak to would be the Prosthetist. This person had undergone unique surgery, a forequarter amputation with a reconstruction element, creating a shelf that would allow clothing to sit better. The Prosthetist helped me understand what the prosthesis would look like and how it would function. In amongst all my questions, the Prosthetist had an idea and realised that there was another avenue that could be explored, so they moved from a passive cosmetic set up to a functional body-powered limb. I came away from the conversation feeling elated that I had influenced a potential change of prescription, or at least created an alternative option. This made me feel included; a huge step forward in my confidence with this patient group.

I am still working out when is the right time to carry out a formal Physiotherapy assessment on a primary patient with upper limb loss as they tend to have a lot going on. All the primary patients I've seen so far have had their amputation because of sarcoma or trauma and have been through a sudden life change. They are assessed for a prosthesis as well as having an OT assessment. A lot of information is exchanged during the first couple of sessions and the experience is understandably overwhelming. I ensure I introduce myself at the first appointment to explain the role of Physiotherapy, and give advice on their posture and joint mobility (within pain free available range). The assessment process can be long and tiring; sometimes

a patient requests a separate appointment for the Physiotherapy assessment. However, depending on how far people have to travel – frequently long distances across Scotland – multiple interventions must be carried out in the same session; it's an individual's choice. By contrast, the established cohort tend to be of working age and have to manage their appointments around their work patterns. Physiotherapy is often requested to support other MDT appointments, but this can happen any day or time and can often clash with other patient slots. This can lead to the Physiotherapist either having a quick "touching base" chat or not getting an opportunity to speak to them at all. I am actively seeking out opportunities to spend time with my colleagues to gain a better understanding of everything that is involved in order to optimise the patient journey.

Gathering referrals:

Over time, I have accrued more referrals for established patients. Some of these are related to overuse injuries e.g. neck and back pain (and also in the lower limb e.g. ankle). You are probably reading this and thinking that I am mad for taking on some MSK specific injuries – I certainly did! However, I was trying to establish whether or not there is a role for Physiotherapy within the upper limb loss MDT and this was part of my learning journey. If the individual didn't make any progress within 3 sessions of seeing me, I would refer to MSK outpatient services. We need to be aware of our limitations remembering our duty of care to patients.

Recently I was asked to see a patient with congenital limb loss, who hadn't worn a prosthesis for years. They had decided this would be a turning point for them before celebrating a milestone birthday. The Prosthetist described this person as enjoying activities such as running, yoga and "Joe Wicks" workouts, so I was very excited to get my teeth stuck into something completely different. During my objective assessment I noticed their centre of gravity was shifted, however when corrected to midline they described this as feeling "weird". The shoulder of the residual limb was protracted and elevated and there was an element of kyphosis with a significant lack of thoracic spine rotation. We worked on this for the first month and the programme has altered quite drastically. This individual was prescribed a shroom tumbler (terminal device specifically for floor exercise and mat type activities) and their goals have changed to being able to carry out a press up, dynamic plank exercises and burpees. Although the prosthesis is simple, it allows the individual to access a range of exercises and enables them to take part in these classes with friends.

Review of the service:

Over the last 9 months, I have had 12 referrals, ranging from 17 – 76 years of age. 8 of these individuals have limb loss due to trauma, 2 due to a sarcoma and 2 with congenital limb loss. There have been 5 primary referrals and 7 established. The level of limb loss varies from forequarter to metacarpophalangeal joints, with the most common being transradial. Two thirds of the referrals were made by the OT and the rest from the Prosthetists, along with 1 self-referral. Since starting the service, there have been 6 discharges completed with approximately 3 sessions of assessment/treatment involved. I now attend monthly "Fancy hands" meetings with Prosthetists and OT's across 2 sites, WestMARC in Glasgow and the SMART (Southeast Mobility and Rehabilitation Technology) centre in Edinburgh. During these meetings we discuss current patients and problem solve any issues raised.

Where do I go from here?

Moving forward, I would like to continue to develop my knowledge within this area by working alongside my 6 upper limb skilled colleagues, as well as reading further around the topic and the impact of upper limb loss. I will also utilise my links with BACPAR as there is a wealth of knowledge and skills within this specialist network. I am also keen to develop a Pilates group as a steppingstone for individuals to transition into a local community class. Upper limb rehabilitation is opening me up to a whole new world. I feel overwhelmed by the information that I'm coming across, but I'm so excited at the prospect of doing something new.

LIMBPOWER AND MOVING MEDICINE

Kiera Roche, CEO LimbPower

I am Kiera Roche, above the knee amputee and founder and CEO of the charity LimbPower. I have worked for LimbPower for 12 years, before this I worked for the Douglas Bader Foundation and the Limbless Association. I have been working with the amputee community for over twenty years.

LimbPower will have a regular column in the BACPAR journal to share information with you about services and programmes that are available to support you and your patients/clients.

The new Prosthetic Service Specification states that "All prosthetic services must provide the following" and includes "Support to maintain and improve existing levels of exercise and fitness". When you are all incredibly busy this is easier said than done, so the first programme I wanted to let you know about is the amputee module of the Moving Medicine programme which is designed to support you to have these conversations.

https://movingmedicine.ac.uk/consultation-guides/condition/adult/amputee/

Moving Medicine is an initiative from the Faculty of Sport and Exercise Medicine UK, created to ensure that all healthcare professionals have up to date and easy access to information on how to speak with patients about physical activity. The programme was created to support healthcare professionals to integrate conversations about physical activity into their routine appointments with children, young people and adults.

Moving Medicine provides clinicians and allied health professionals with accessible, evidence-based, condition-specific information to help you give advice for use at all stages of treatment pathways. There is also a toolkit for hospitals to help people to be more active during and after their time in hospital.

The Oxford Limb Centre worked with the Faculty of Sport and Exercise Medicine UK to create an amputee specific module and brought LimbPower, BACPAR and BAPO into the conversation to support the development of this module, so some of you will already be aware of this amazing resource.

To make it simple and easy to integrate into your routine appointments there are three time-specific conversation modules;

- the one-minute conversation **https://movingmedicine.ac.uk/consultation-guides/condition/adult/amputee/one_minute/**
- the five-minute conversation **https://movingmedicine.ac.uk/consultation-guides/condition/adult/amputee/five_minute/**
- and the more minutes conversation **https://movingmedicine.ac.uk/consultation-guides/condition/adult/amputee/more_minute/**

There are also resources for you to share with your patients to support engagement in physical activity including:

- Lower Limb Amputee Patient Information Leaflet **https://calderdale.movingmedicine.ac.uk/wp-content/uploads/sites/5/2021/03/Amputee_Patient_info_leaflet.pdf**
- Prosthetics Home Exercise Booklet **https://calderdale.movingmedicine.ac.uk/wp-content/uploads/sites/5/2021/08/Prosthetics-Exercise-Booklet.pdf**
- A Physical activity diary **https://calderdale.movingmedicine.ac.uk/wp-content/uploads/sites/5/2021/03/PA-Diary-1.pdf**
- Workbook for an active lifestyle **https://calderdale.movingmedicine.ac.uk/wp-content/uploads/sites/5/2021/08/Patient-workbook.pdf**

And there is an online training course called the Art of conversation **https://movingmedicine.ac.uk/activeconversations/**

To further support you LimbPower have six Physical Activity Advisers working at Prosthetic Service Centres (Manchester, Newcastle, Roehampton, Nottingham, Oxford and Leeds) so please do engage with them. We are hoping to have two new advisers shortly in the South East. I will tell you more about the Physical Activity Advisers programme in my next article.

Please do make use of this excellent online resource or contact LimbPower at info@limbpower.com who are always happy to help you support patients to engage in community activity.

THE LIMBLESS ASSOCIATION'S PEER SUPPORT SERVICE – VOLUNTEER VISITOR AMPUTEES SUPPORTING AMPUTEES

The Limbless Association (LA) is a national charity that has been supporting amputees and their families across the UK since 1983. It provides free, high-quality information, advice and support to anyone pre- or post-amputation by phone, email and online.

Beginning life as a campaigning organisation, in recent years the LA has further developed its services and projects to support the early rehabilitation pathway for amputees. We aim to work collaboratively with sector professionals to ensure that no amputee need cope alone.

We provide a range of services which are free to amputees including the LA helpdesk, Volunteer Visitor peer support, Support and Connect Outreach, access to legal advice, Virtually Speaking online events and talks, information packs, the AmpLAfy podcast and StepForward magazine.

In 2021 – thanks to funding from the National Lottery Community Fund – the VV service was able to further expand and enhance its peer support model. A dedicated project team is in place to support these exciting developments.

Volunteer Visitor peer support

The Limbless Association's Volunteer Visitor (VV) service is a free, non-clinical peer support service that has been operating for over 20 years. Our volunteers are trained and vetted amputees of at least two years and have undergone a full safer recruitment process. They

make a unique contribution to the limb loss community by giving their time and lived experience to help those who have had, or are about to have, an amputation: amputees supporting amputees. Our VVs now take part in a comprehensive induction training programme and have access to an additional structured 6-month training package which further supports them in their development.

Peer support is now widely recognised by healthcare professionals as a helpful part of the recovery process. Volunteer Visitors focus on key topics identified by the service users, offering empathy, support and practical advice. Service users have their questions answered by someone with similar experiences and receive specific support from another amputee who really understands their challenges and goals.

Service users receive one 'visit' – usually undertaken by phone or virtually – that lasts around an hour, with the option of further visits if required. They can be signposted to additional support if needed and also

benefit from the wide range of other free services provided by the LA. We operate to a detailed service specification and this is available upon request to any professionals who are interested in accessing the service.

The impact of the Volunteer Visitor service

The VV service has a positive impact on both the service users and the Volunteer Visitors themselves, some of whom were originally service users when they first became amputees.

Courtney – service user

Courtney became an amputee at the end of 2020. He explains how a visit from a Volunteer Visitor helped him to overcome his feelings of isolation and to have a more positive outlook on living with limb loss.

"I don't think anyone can prepare you to lose a limb. One of the hardest things about becoming an amputee was what other people think about me and what they see. I felt before my volunteer visit that I was alone – I didn't know if I could cope with my everyday living. I was worried about friends and family, especially family, and how we would go forward. I felt sympathy from them, but I needed empathy – someone who understood where I was with my amputation."

Courtney's Volunteer Visitor contacted him not long after he had left hospital.

"I was very at ease during the visit. The questions I asked were answered and also questions that I hadn't asked. They gave me lots of answers to things I didn't understand and needed to know.

"After the visit, I felt a lot of empathy rather than sympathy. The VV understood my situation of being an amputee. Now I don't feel that I'm on my own anymore. To talk to someone who actually understands your state of mind and the way you are, I felt very understood by the end of the visit."

Courtney found that talking to a Volunteer Visitor has really helped him to focus on his recovery.

"What I most gained from the VV visit is me. I haven't changed, my goals and situation have changed but I haven't changed. It put me in touch with myself much sooner than I thought possible."

Ann – Volunteer Visitor

Ann has been an amputee since August 2017. As a fit and active person, her amputation was totally unexpected.

"I did an aquarobics class one evening and then, at home, suddenly my right leg went completely numb. When I got to hospital, it was found that I had a blood clot on my right knee and, after several attempts to clear it, I had to have my right leg amputated above the knee."

Ann did not know anyone in the same situation as her. "My friends were fantastic, as were the doctors, physios and prosthetist but I knew nothing about day-to-day life and appropriate support after losing a limb. It was a complete shock, and I didn't know what to expect and how to deal with it. I think if support from another amputee had been offered to me at the time, I would have taken up that help and hopefully got on with a little bit less of a struggle than I have."

Ann joined the Limbless Association to be with others in a similar situation. She heard about the Volunteer Visitor service at an LA online 'Hub Chat' group and decided to apply, to see if she could offer the support that she didn't have as a new amputee.

"I very much enjoyed the VV training. It was good to learn some new skills and to brush up on some old ones. The support that is there for Volunteer Visitors was also a confidence booster – there is a backup team there to support us."

"Being able to speak with others in a similar position helps us realise that we are not alone, there are others in a similar position who are willing to listen, provide hints and tips and share experiences. We are of course all unique – but there is always common ground and it's good to share. It has helped me feel of some use, bringing back a purpose and feeling needed. It has helped me see that my new way of life can be of benefit to others and hence to me."

Mukhtar – service user and Volunteer Visitor

Mukhtar has been a right leg, below knee amputee since December 2017, after a car mounted the pavement and hit him as he left a friend's Christmas dinner party. In his experience, the best way to get information about limb loss is from someone who has been through it themselves.

Three days after the accident, an LA Volunteer Visitor came to talk to Mukhtar in hospital. "He told me about getting a disabled badge, applying for the Personal Independence Payment (PIP) and all the things that I was entitled to. He helped me focus on my rehab and getting my life back. He made me feel that I wasn't alone and personified the fact that there is life after limb loss."

Mukhtar believes peer support is fundamental to any rehabilitation process. "When I had any questions, I had someone with knowledge and experience to go to. I could rely on him emotionally to understand what I was going through. After losing my leg, I had been in a low place and it made it so much easier to talk to someone who gone through the trauma I had been through."

In 2020, Mukhtar felt ready to apply to become a Volunteer Visitor. "I felt like I was back in control of my life which just showed me that there is life after limb loss. I know everyone's journey is really different. I just want to be there for others to give them my experience, knowledge and emotional support in the way that it was provided for me. I now relish the chance of being a part of someone's journey to help them overcome the hurdles. It's amputees supporting amputees."

Accessing the Service

Amputees can self-refer to be matched with a Volunteer Visitor and the LA also welcomes referrals from professionals and relatives. All referrals need patient consent.

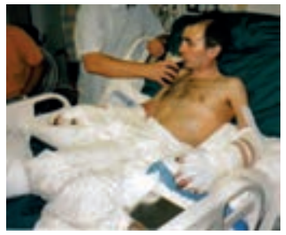
If you have a patient who would benefit from the VV service, you can find out more and complete a referral form on the LA's website – **www.limbless-association.org/volunteer-visitors**. Alternatively, the VV team would be very happy to discuss the service and can be contacted on 01277 402331.

If you are working with amputees who are two years post-amputation and would like to volunteer, the LA would be very pleased to hear from them. The LA accepts applications on an ongoing basis which can be made through the LA website.

For more information contact **volunteervisitor@limbless-association.org**

PATIENT ADVOCACY NEEDS RESILIENCE AND RESILIENCE IS A CHOICE

Steve McNeice



As war broke out in Iraq on the 19th March 2003, I was struck down by a life-threatening bacterial infection called Group A Streptococcus, which mutated twice before attacking me through my bloodstream. I started to die from my extremities. Apparently I did die on a number of occasions but after many lifesaving interventions I kept coming back. The result of this however, was the loss of both of my legs above the knee, the loss of the muscles in my right forearm, all my fingertips, my little finger on my right hand, extensive scarring on both arms and both residual limbs, extensive lung capacity reduction and also deafness in one ear and significant hearing loss in the other – I'd had better days. I spent 17 months in 4 different hospitals as an in-patient.

Back in 2003 the normal clinical expectation for someone like me was a life in a wheelchair but as I'd had a life of high activity I was determined to walk again. I left school in Moss Side Manchester in 1978 and started to train as an accountant whilst taking up various sports including Martial Arts training at Manchester's Chinese Community Centre (at that time I was one of only 2 westerners to be allowed to join in so this was a privileged opportunity). I also joined the Territorial Army and really just cracked on with life. I moved for work as required and have lived in many places. I was a competitive triathlete and marathon runner for at least 17 years and so when I lost my limbs I seized the opportunity to re-learn to walk.

Simplistically I did this by recognising very early on that I had to take responsibility; not just for my health and well-being but for my rehabilitation as well, ensuring that I maximised on opportunities to work collaboratively with my many caring healthcare professionals (especially Maggie whose whip I now send a Xmas card to ha ha ha). Whilst I was an inpatient receiving intensive rehabilitation, I noticed that if I pushed my rehabilitation then my therapists would pull and so I started to push and just kept pushing! As a consequence, many of the then accepted boundaries for people in my position, were broken down as we evolved and developed, and my mobility improved as did my independence and outcomes. I like to think that by working collectively we helped to change the perception of what is possible for someone with my levels of limb loss at that time. Importantly my rehabilitation didn't finish when I finally escaped home as I continued to work with my physiotherapist and the wider MDT as an outpatient for a number of years post-discharge. This allowed me to work on specific tasks such as tackling obstacles, descending slopes and running.

Along my rehabilitation journey I have been, and continue to be, privileged to have helped influence national policy and service provision for the benefit of the individual patient and the patient pathway. Interestingly it was my Occupational Therapist that initially got me involved in 2003 insisting that I should apply for the first ever service role on the Ethics Committee at the now Royal College of Occupational Therapy – I was encouraged that it was part of my rehabilitative process!!! I was appointed and re-elected twice and this group saw me progress from being transported to meetings from my hospital bed to ultimately driving myself and walking into a meeting unaided.

From this beginning I was able, working with a very good friend and fellow bilateral amputee Sam Gallop, to grow a large national and international network and outreach that maintained, influenced and supported putting the patient at the heart of everything. We established and grew an All-Party Group for, and on behalf of, parliamentary members of both houses. The Westminster Cross Party Limb Loss Group (2016 onwards) arose out of the Associate Parliamentary Limb Loss Group (2005-2016). We recognised that only through constructive collaboration of entire health and care pathways could positive and sustainable solutions be found to constant calls upon finite resources against an ever growing individual need coupled with wider increased patient and public expectation. Collectively, these groups have been very influential and have shared over 620 parliamentary newsletters, both nationally and internationally, as well as writing, maintaining and supporting Patient-Led National Charters for Prosthetics, Orthotics, Wheelchair & Special Seating Services. We have also been instrumental in the GET MOBILE – STAY MOBILE and avoid Limb Loss, Ulcers and Pressure Sores campaign. We have held 23 parliamentary meetings, 3 of which were collaborative with other All-Party groups as well as 2 parliamentary conferences entitled 'Health and Wellbeing to PREVENT LIMB LOSS In DIABETES' and 'Utilising AHPs in National Commissioning to improve Patient Outcomes'. We have also held a parliamentary reception on 'Preventing Limb Loss' and a parliamentary launch for the newly established 'European Limb Loss Day', which we used to celebrate what was good about our many caring health and social care professions, national services and equipment provision.

Sam and I have both written and published many eBooks and evidence reviews, individually and collectively, which have been used as evidence and references for other pieces of work within national policy and service provision. We have highlighted shortages of vital equipment in specialised & non-specialised services, and have identified opportunities within education and training for our caring healthcare professionals amongst numerous other campaigns. I have produced many poster presentations for national and international conferences, one of which won first prize at an international event in London. We have commented on countless public and professional consultations over the last 2 decades and I have and continue to submit many regular Freedom of Information requests to help stimulate service improvement and patient awareness and to try to make good use of finite but vital resources.

I have held many roles on varied national and international groups across many Government departments, Universities (including the Council of Deans of Health and Medical Schools), Professional Bodies (including the Health & Care Professions Council), Research organisations and various charitable organisations as well as being a Parliamentary Outreach Approved Facilitator and Trainer. A group worthy of particular note to BACPAR members is the National Allied Health Professions Patient Forum, which was established by Karen Middleton as the Chief Allied Health Professions officer and an example of its work can be found here **https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/212942/annual-report-NAHPPF.pdf**. This group became the stimulus for Health Education England's Patient Advisory Forum.

As part of any group and/or consultation I would try and help to shape existing and future national policy and/or national service provision through constructive challenge and the sharing of patient experience based opportunities, much of which often takes many years to bring about. An extreme example of this is the development and establishment of the P&O Apprenticeships for level 3 Technicians with the follow-on full degree course, which I have been involved in since 2005 and Sam was involved before that. This has now been launched at the University of Derby with its first intake in 2022. It is important to share that as well as championing the patient voice I would often be a minority voice speaking up for minority health & social care professions, which I felt was important given that minority professions generally have limited resources and are often unable to be represented as specialised services at a national level.

Voluntary advocacy groups are only as influential as the effort that is put into them and I think that since 2003 Sam and I have done a robust job to highlight and bring focus to our patient pathways, national standards & specifications highlighting areas of opportunity including new ways of working. I'm pleased to share that BACPAR always supported Sam and I and I hope that they felt we helped BACPAR as part of our endeavours.

I have also sat on various National Conference Panels and I have done many presentations in many countries, sometimes about my story, which I would suggest is a simple one of 'resilience'. We all have resilience but it is what we each understand this to be and how we utilise it that makes us all different. For me, resilience is a choice… as I believe that it is the choices that we make and decisions that we take that ultimately determine who we are and who we become. So how did I use resilience to improve my outcomes? Well…

- I chose to challenge the status quo
- I chose to confront and push through the many barriers placed before me
- I chose to be the best that I can be with what I've got and not what I haven't got

… and I suppose most of all…

- I chose and still choose to keep going regardless of what challenges await me…

Today, some 19 years on as an amputee and at an age greater than 60 I generally walk unaided although I still have mishaps and falls (but I think that I can blame my prosthetist for those!!) I still maintain that it's a privilege to walk and this autumn I shall be walking my daughter down the aisle at Hever Castle, which is very exciting and given this honour I can share that the prize is most definitely worth the effort...

POSTSCRIPT

Professor Karen Middleton CBE FCSP MA,
Chief Executive of The Chartered Society of Physiotherapy
Email: middletonk@csp.org.uk
Twitter: @KMiddletoncsp

'The National Allied Health Professional (AHP) Patient Forum was an example of a few people knowing instinctively this was the right thing to do but not being quite sure how it would work or what its impact would be! For me, as the Chief Allied Health Professions Officer, at the time, it was about ensuring that the patient voice was front and centre of everything we did in developing health policy in the allied health field – and it was uncomfortable at times because the balance of power had definitely shifted! On the other hand, without that patient voice – in the form of Steve on this particular occasion – independent prescribing for physiotherapists and podiatrists would not have become law with all the resulting positives for patients and the public – the patient voice really could move mountains!'

EQUITY, DIVERSITY AND BELONGING

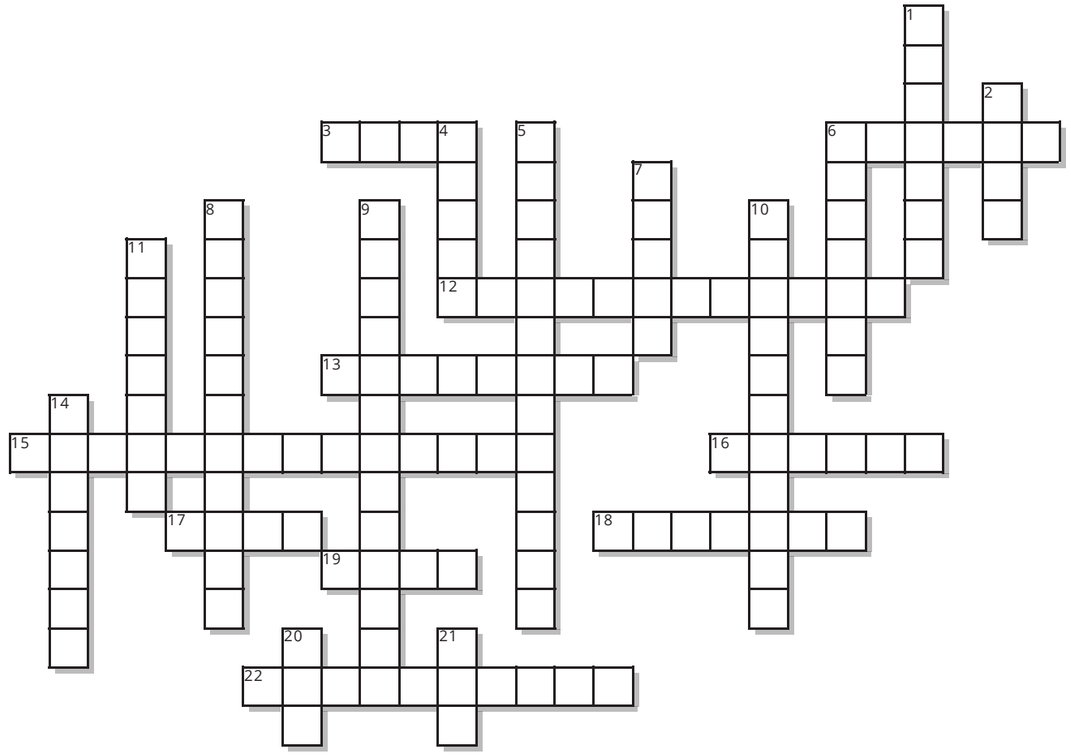
Lynsey Matthews
Bacparmembership@gmail.com

As well as Membership Secretary I am also the BACPAR Lead for Equity, Diversity and Belonging.

The CSP produced a new Equity, Diversity and Belonging Strategy in October 2021. With this in mind, we want to be sure that we are representing and supporting all our members. If you need any support, can't access our resources, or have any advice on how we can ensure we are fully inclusive then please get in touch.

JOURNAL CROSSWORD

Compiled by Sue Lein



ACROSS

3 These are parallel in the gym (4)
6 A therapy for pain syndromes using reflection (6)
12 Modification of traditional transfemoral amputation (6-6)
13 Venue for our 2022 Conference (8)
15 BAMS for example (7,7)
16 Sub division of BACPAR - your local one (6)
17 New word in our name (4)
18 Something we aim to prevent our patient doing (7)
19 To deliver a blow - or a compression garment (4)
22 Done using models like Schon, Gibbs etc (10)

DOWN

1 Arrives twice a year from BACPAR (7)
2 A way to have meetings in a pandemic (4)
4 Our sister organisation in Scotland (1,1,1,1,1)
5 The Chartered Society of it (13)
6 Next level of study after a first degree (7)
7 Our retiring Chair (5)
8 Major international sports competition for people with disabilities (11)
9 The 'i' in ISPO (13)
10 Prosthetic Limb Centre colleague (10)
11 Another new word in our name (7)
14 Grant given by BACPAR to support study or research (7)
20 Lower limb (3)
21 Cold therapy (3)

‘PRACTICE WHAT YOU PREACH’: REFLECTING AND UPDATING THE CPD AND MSC OPPORTUNITIES IN AMPUTATION AND PROSTHETIC REHABILITATION

Dr Maggie Donovan-Hall, Associate Professor in Health Psychology, School of Health Sciences, University of Southampton, UK
Chantel Ostler, Highly Specialist Physiotherapist, Prosthetic Rehabilitation, Portsmouth Enablement Centre, UK
Dr Cheryl Metcalf, Head of School of Healthcare Enterprise and Innovation, University of Southampton, UK

Background:

The MSc Amputation and Prosthetic Use programme has been running for 5 years now and we thought we would share with you some of our thoughts about the course. We spend quite a lot of time within the programme and modules discussing the importance of reflective practice, and the value of taking time to evaluate and make changes. In fact, we have even included a ‘reflective element’ as part of the assessment within the ‘Amputation and Prosthetic Use’ module, where students are asked to write a reflective account on an issue discussed within the module relating to their own professional practice. We also take a reflective stance within our teaching sessions, embracing the importance of a ‘safe space’, where we set clear confidentiality ground rules to ensure we feel at ease discussing and wrestling with difficulty issues. We can’t quite believe we are now halfway through the sixth academic year of the programme, as always time has gone by so quickly. We are also knee-deep in revalidation documentation as it is a university’s requirement to regularly review academic programmes to ensure they continue to be good quality, strategic and general fit for purpose. We are also buzzing with excitement as Chantel is seconded one day a week to work on the programme. So, with all this change going on, we thought this was the perfect time to ‘practice what we preach’ and take time out to do a bit of reflecting of our own! To help us do this, we asked some of our current and past students to provide us some points of reflection on their own experiences. We will do what we encourage our students to do and use a simple reflective cycle to guide our considerations.

What is happening now?

As several you will remember, following a call for collaborators, we started working with BACPAR in 2015 to develop a range of ‘Continued Professional Development’ (CPD) opportunities within the field of ‘amputation rehabilitation’. We worked in partnership and developed a range of CPD offerings. That range included being able to complete a single CPD module through to a full ‘MSc Programme in Amputation and Prosthetic Rehabilitation’, with two potential exit awards (e.g., a Postgraduate Certificate and Postgraduate Diploma – See figure 1).

Award	Modules required
Standalone or Option Modules	Amputation Rehabilitation and Prosthetic Use
	Contemporary issues in limb loss’
Post Graduate Certificate in Amputation and Prosthetic Rehabilitation	Research Methods and Evidence Based Practice
	Amputation rehabilitation and Prosthetic Use
Post Graduate Diploma in Amputation and Prosthetic Rehabilitation	Amputation rehabilitation and Prosthetic Use
	Contemporary issues in limb loss’
	Research Methods and Evidence Based Practice
	Select options modules worth 20 ECTS
MSc Amputation and Prosthetic Rehabilitation structure	Amputation rehabilitation and Prosthetic Use
	Contemporary issues in limb loss’
	Research Methods and Evidence Based Practice
	Dissertation Module
	Select options modules worth 20 ECTS

Figure 1: MSc Amputation and Prosthetic Rehabilitation structure and exit awards.

This involved developing two specific amputation modules that provide current and specialist knowledge relating to all areas of practice (see Table 1). Since the beginning of the programme, we have delivered the modules in four-day teaching blocks that run from Thursday to Sunday (i.e., module 1 has two teaching blocks and module 2 has one teaching block). Although it means weekend working for everyone (hopefully made better with a constant supply of coffee and biscuits) this seems to work as it is easier to negotiate study days and limits the use of precious annual leave. It is also easier to stay over for those who live any distance from Southampton, and the campus is quiet with free parking!

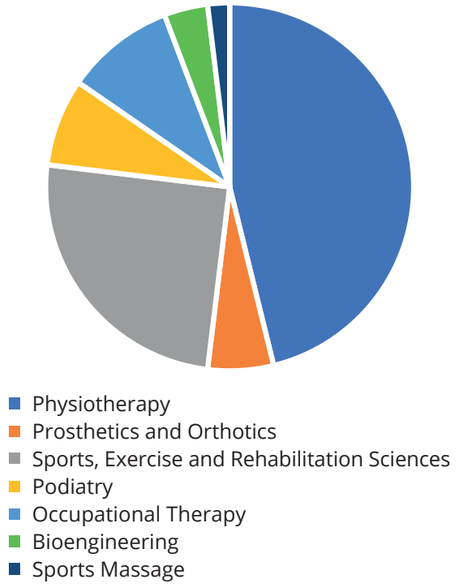


Figure 2: Professional backgrounds of ‘MSc Amputation and Prosthetic Use’ students

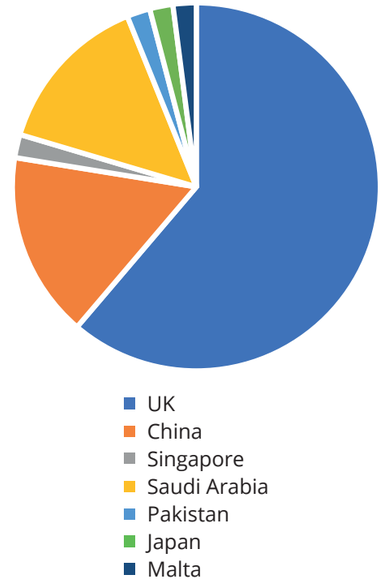


Figure 3: National and International Experience of ‘MSc Amputation and Prosthetic Use’ students

Despite a four-day teaching block being quite tiring, these intense teaching blocks appear to work well in terms of group cohesion, and it is fantastic to see how the level of peer support develops. We are seeing a clear trend of students completing a single module as a standalone, but then deciding to complete the entire programme. Over the last six years, we have currently had 69 students who have complete module 1, 56 students have completed module 2, with a total of 52 students enrolled on the entire programme. A key aim of the programme has been to embrace a multidisciplinary approach that is clearly aligned to the interdisciplinary nature of amputation and prosthetic rehabilitation.

We started off with a strong link to physiotherapy and occupational therapy, but over the years have seen an increase in the number of related disciplines showing an interest in the programme, figure 2 provides an overview. We are also delighted with international growth of the programme and are attracting students from a wide range of different countries. Our students tell us that this provides an interesting dynamic to the programme, and it is interesting to hear about different cultures, societies, and healthcare settings (see figure 3).

So, what do ‘we’ think about this?

A key motivation for developing this range of CPD opportunities was in response to the growing increase in amputations, in both the UK and at a global level, and the need to address the gap in specialised qualifications for the growing interdisciplinary professionals working in the field. We therefore think taking an evidence-based teaching approach is extremely important and we are delighted to have ongoing support from a wide range clinical, academic and industry partners as invited speakers. This involves working closely with both local clinical services, multidisciplinary national interest groups, and charity organisations. We believe that our external collaborations are fundamental in maintaining the applied and person-centred ethos of the programme, and this view seems to be echoed by our students.

Increased understanding knowledge of current practice - service improvement ideas….

Up to date knowledge of prosthetic developments

It is also promising to hear how our students view the topics included and can make direct links to reflecting on their own clinical practice and improving the services in which they work. We continuously review the content of the modules to ensure that the topics

included are aligned to current policy and practice at both a national and international level, as well as illustrate contemporary views, new innovations, and the latest research. For example, in the recently run 'Contemporary Issues in Limb Loss Module', we involved current debates relating to the disposal of limbs after amputation and the pre-amputation conversation, with a great session run by Dr Esmée Hanna from De Montfort University, Leicester. We also discussed key issues around increasing physical activity and sports and were delighted to by joined by Carolyn Hirons from Pace Rehabilitation, and had a great interview with Aaron Phips MBE who is part of the GB wheelchair rugby Paralympian team. It was also great to dedicate an entire day to the importance of socket fit issues (our 'Super Socket' Day) where we welcomed a range of fantastic speaker discussing the latest devices in direct and mouldable sockets, CADCAM and 3D printing, as well as considering patient perspectives of socket fit. We also spent time reviewing technological advances in prosthetic componentry and explored contemporary issues related to communication, making clear links to the role of telemedicine during the Covid-19 pandemic. Through exploring global challenges in prosthetic service delivery, we reviewed the evidence base and engaged in interesting debates regarding health inequalities and sustainable healthcare systems. We are pleased that we can maintain an interdisciplinary perspective throughout the entire programme and embrace opportunities throughout all modules to encourage peer learning, peer support and multidisciplinary group work. We feel that this module sits nicely besides the 'Amputation and prosthetic use' module, which is a double credit module (i.e., twice as big) and take students on a journey from pre-amputation to living with limb loss, carefully reviewing each aspect from a person-centred and interdisciplinary perspective.

Thought-provoking for certain area of own practice.

Develop research skills for future academic pursuits…

I like this course and the fact if being in people from a multi-disciplinary team to understand all aspects of my prosthetic rehabilitation process…

Broad topics coving both UK and global issues in current research….

Although we embrace an interdisciplinary approach, we spend considerable time reviewing how this is working and try to ensure that we meet the needs of students from all professional backgrounds and with varying levels of work experience within the field. As the programme continues to grow and evolve, we recognise that each cohort of students is becoming increasingly different from each other and can have very specific needs. Although we think that this is exciting and provides a dynamic element to the modules, it can be difficult to manage. This is clearly captured by the student in the quote to the right.

Includes students from different backgrounds, mix of clinical and non-clinical. So, difficult to target presentations at the right level for everyone.

Some speakers talking with a lot of data for long periods of time… struggle to stay engaged!

We expect you can tell that we are very compassionate and enthusiastic about trying to provide a high-quality evidence-based teaching approach that is applied to current practice and contemporary at both a national and international level. This does not just apply to us, but also the speakers that we involve in the modules and perhaps how much we try to capture within each session. Due to the variety of different topic areas we try to include, we feel that we are sometimes a little over ambitious and try to include too much information. We understand and agree with this final quote and acknowledge that this is something we need to review and think about moving forward.

What now? What do we plan to do differently?

As stated above, we are in the process of preparing the programme revalidation documentation and are currently at the second stage of a three stage formal process. This provides the opportunity to carefully review all aspects of the programme and request changes for the future. All aspects of the past 6 years and future changes will be scrutinised by an internal and external panel. Due to space and word count we were only able to provide an example of student quotes within this article. However, reviewing both wider module feedback, comments from our external examiner, this feedback, and our own observations, we plan to make the following changes:

- *Send a frequently asked 'questions and answers' leaflet to every student that enquires or applies for a module or the entire programme.*
- *Provide more background information to students who are new to the area of prosthetic rehabilitation. This will involve a pre-module catch-up where a bespoke package of pre-reading can be provided.*
- *Review the contents of each and ensure that we are not trying to include too much information into each session. Although students prefer face-to-face teaching and are glad, we are back in the classroom following the Covid-19 restrictions, we feel that there is definitely scope to include more pre-recorded and online material to reduce what we try to squeeze into each session (i.e., a slight hybrid approach).*
- *With the specific amputation modules and across the programme modules in general, most assessments are written assignments and are very essay based. To address students different learning styles, we plan to review this and ensure that we include a broader range of assessment types, such as presentation forms and professional conversations.*
- *Although the Covid-19 pandemic and remote studying could be very challenging, the university developed a range of excellent support mechanisms that will be staying in place. We also provide the maximum level of student support, and due to the small size of the programme we can help each student identify their specific learning needs and tailor the programme accordingly. We therefore plan to ensure that what we offer at a programme level clearly complements the university level support and all students are clear how to engage in the wide range of support available.*

How to find out more about modules and programme:

Thank you for reading this article. We would be delighted to hear any of your views about these CPD opportunities or do get in touch if you are interested in hearing more about the modules and programme.
Programme Website: **https://www.southampton.ac.uk/courses/amputation-and-prosthetic-rehabilitation-masters-msc**
Programme Lead: Dr Maggie Donovan-Hall, School of Health Sciences, University of Southampton
Email: **mh699@soton.ac.uk**

BACK TO THE BOOKS OR SHOULD I SAY JOURNALS

Linsay Clark, Specialist Vascular Physiotherapist, Queen Elizabeth University Hospital, Glasgow.

Two BACPAR Members – Linsay Clark and Hayley Freeman – are undertaking the MSc in Amputation and Prosthetic Rehabilitation at the University of Southampton and were both granted BACPAR bursaries towards their studies. A few months into the programme they are sharing their reflections on the journey so far and the first modules. Hayley closes by sharing her 'MSc Top Tips' with us.

I have memories of attending BACPAR conferences in earlier years and having the aspiration to undertake a MSc Qualification in Amputation and Prosthetic Rehabilitation. I was always encouraged at the conferences by the drive towards improving and advancing the care given to people with limb loss. Having worked in Amputation Rehabilitation for the last 10 years and taken time out to have my family, I felt that this was the opportune time to go for it! Naturally I had some reservations: will I have time? Will I start but struggle to finish? Will I be any good at writing at MSc level? Thankfully the team at the University of Southampton are very supportive and I am glad to say that I am thoroughly enjoying my return to studying. So far, it has been more manageable than I expected…although don't ask me this again during dissertation year!

I started by contacting Maggie Donovan-Hall who is the Programme Lead, to find out more about the course. What struck me most was her enthusiasm for the course and her commitment to making it accessible for people from a variety of different backgrounds. There are different ways to undertake the MSc programme, be it taking one module, working towards a Postgraduate Certificate or Postgraduate Diploma, or completing the full MSc qualification. This can be done full time over one year or part time over up to four years. This flexibility provided the cushion I needed when working almost full time and having a young family. For some of the modules you are required to attend Southampton University for face-to-face teaching which is delivered by academics who are expert in the field.

An important factor when choosing this postgraduate course was that it was specific to my field. Knowing

myself, I would struggle to keep motivated during those late nights finishing assignments if the content lacked relevance. It was paramount to me that I could use this learning to better myself as a physiotherapist and improve the quality of care that I provide for this patient group. The MSc in Amputation and Prosthetic Rehabilitation at the University of Southampton was the perfect opportunity for me. It is important to say that it would not have been possible without the bursary support given to me by BACPAR, for which I am very grateful.

To date I have completed the first module and I have especially enjoyed the evidence-based nature of the course. Reviewing research articles has reinvigorated my love of working with this patient group. Sometimes when working in the NHS, the constant pressures and cost saving can make you lose sight of what is important to the patients. Being able to critically review the research has allowed me to reflect on my own practice. I have especially enjoyed reviewing some of the qualitative research as it gives people with limb loss a voice. Whilst rehabilitation services in the NHS can sometimes feel like a conveyor belt this voice brings it back to the person at the centre of it all, the patient.

Whilst I have only just started my MSc journey, I can already see the benefit to my practice and hopefully as time goes on this will also positively impact my patients.

REFLECTION FROM A CURRENT (PART-TIME) STUDENT
Hayley Freeman, Physiotherapist, Gillingham DSC

Introduction

I am a senior physiotherapist working at Gillingham Disablement Services Centre, I have worked there for 8 years now and previously was a Team Lead on the acute vascular wards at Medway Maritime Hospital. My role includes pre-prosthetic amputee rehabilitation, prosthetic rehabilitation, pre amputation consultations with the MDT and I also offer support and guidance for any community/acute therapists working within Kent that may need it. I predominantly treat patients following lower limb loss, however, occasionally get involved with patients with upper limb difference also.

Why?

Why did I take the initiative to start the MSc part-time programme? If I am honest, it is something that I have thought about for MANY years but always found a reason (excuse) not to start it! I was petrified (no exaggeration) of academic writing and not being able to cope with the demand. It has been one of my objectives since the course began and I just had to give myself a firm talking to and finally, the want to complete it to progress my career/practice, outweighed my fear. Here I am!

How has it been?

It has actually been really enjoyable; I know that makes me sound like a geek but there is far more to this Masters programme than the content and assignments. I have really enjoyed learning from other students on the course. We are all encouraged to share our own, often different, experiences whilst constantly relating any topic back to clinical practice.

This course has covered a lot of new topics for me, which has been enlightening and changed my approach within practice. But even when discussing topics that I had a good knowledge in already, I was encouraged to question my practice by relating it to current research findings. I have found the research aspect really interesting, especially when looking at the patient's perspective.

Completing this course has made me realise that I really did not need to worry about the academic writing aspect or the level of knowledge that was required, I definitely should have started this about 5 years ago.

How does it work?

The masters programme itself is really flexible, it can either be completed in 1 year full-time or up to 5 years part-time. There are 3 set modules to complete; 2 relating directly to amputation & prosthetic rehabilitation (taught face to face at University of Southampton) and also Research Methods (face-face or virtual options) which I completed virtually for ease. It then leaves 20 credits which can be split into two 10 credit modules or a larger 20 credit module. These credits can be chosen from a wide range of modules which enables you to tailor your own masters to suit you. Finally following with a Dissertation.

I have now completed 3 taught modules which have all been totally different and beneficial in their own way. I am looking into available modules for the next academic year and currently swaying towards a management style module and Diabetes in Practice, which are both 10 credits each. This will then lead on nicely to start my Dissertation in my 3rd year.

The course leaders are very passionate about this MSc and try to ensure that the modules chosen/available are best tailored to suit everyone. Maggie and Chantel have been really helpful with any question I have had and always find a suitable outcome.

Struggles?

Before starting my MSc I thought my struggles would be academic writing, navigating my way around literature searches, critically appraising articles and finally juggling my home-life/work-life balance with going away for lectures etc.

Actually , these weren't really too much of a struggle.

Academic writing was challenging for me when I was an undergraduate student, too many moons ago to want to think about, so this was definitely my biggest concern, however, it really wasn't a big issue. We spent a whole afternoon within the first module discussing the written assignment and how to format, approach and plan it. We also had to prepare a poster presentation within the topic choice of our assignment. We received feedback and advice from the course leads about our chosen topic, this was then used as a foundation to our assignments. The university also offers a lot of resources to help with returning to academic writing and the library team are invaluable.

Critically appraising articles and completing a literature search was again another concern as I had been out of practice for so long, however we were so well supported with this. We had a library session where we were taught how to complete a literature search and the best way to limit searches and get the most relevant results. The library team also offer 1-1 or virtual sessions where you can ask for help or unavailable articles, they are a really useful asset to the course. We also spent time together critically appraising articles and the Research Methods module delves deeper into this also. I was so surprised how much easier it was to critically appraise an article now that I have clinical experience and can relate it to practice.

Finally, my last concern was juggling home-life/work-life balance with the demand of work required. I am fortunate enough to work part-time, as my children are all of school age now, this time at home has been vital for my self-directed learning and assignment writing. I would have struggled without this uninterrupted time, but that's just me! However, if you are considering this course, it is a serious consideration as to whether you have spare time to invest in your studies, you do need it. The course modules themselves have been really well considered for working clinicians delivered in blocks of four days (Thursday to Sunday) which has been really useful for study leave from work and also childcare. Anyone with children (even pets!) understands the military planning involved to get away for a few days but honestly, the 4 days in a hotel by myself was worth it!

Summary

I am enjoying learning at this higher academic level and really delving deep into research/evidenced based practice, which is relatively new for me. The assignments are daunting when looking at the module requirements, but you are so well supported with them, it really hasn't been a concern. Don't let that put you off as I have learnt from experience, it is really not as scary as I thought!

If you are reading this reflection and thinking about embarking on your MSc then please don't hesitate, simply get in touch with Maggie to enquire. I would suggest that if you have around a years' experience of working with people with limb loss then you are already well equipped to take on this MSc, go for it.

CONTEMPORARY ISSUES WITH LIMB LOSS
Hayley Freeman, Physiotherapist, Gillingham DSC.

This module has been really interesting: we have covered a WIDE range of topics relating to Contemporary Issues with Limb Loss. If you were like me and didn't really understand the title of this module, then read on! This block of teaching was full of interesting topics, some really thought-provoking subjects to make you question your own practice and thoughts.

Below are just some of the topics taught:

This module really does make you consider things that may not normally be in your remit of rehabilitation e.g. who does the amputated limb (amputate) really belong to??? Do the innovative advances in prosthetic rehab and communication technology lead to health inequalities??? How does health literacy affect our care??? Can we bridge the gap of global challenges in lower resource settings? Do we even need to?????

This module is very thought provoking and provides so many opportunities for group discussion and learning from each other's experience, as well as the knowledgeable team of lecturers. It is an ever-evolving module; all topics were current and relevant to todays practice, global challenges and advancements. It even involves Dragon's Den, but I can assure you Maggie & Chantel are not as scary as Deborah Meaden and Peter Jones!

I have really enjoyed this module and shared a lot of the newly learnt information with my colleagues, friends and even family! I would highly recommend embarking on this module, even for CPD credits rather than the full masters. It will definitely change your thoughts and practices going forwards.

MSc TOP TIPS!

Don't put it off – it's not as scary as it sounds!

Be open minded to learn from other students.

Pay attention to the library session – invaluable info & team.

Be prepared to question your own practice and learn from it!

Don't be intimidated by stats or research – the course leads literally hold your hand throughout!

Make sure you have time to give it your all.

Don't be shy or proud to ask for help.

Use BACPAR funding if needed.

Hayley Freeman

PROFILE PAGE

A DAY IN THE LIFE OF FIONA DAVIE-SMITH

Dr Fiona Davie-Smith, Physiotherapist, Clinical Co-ordinator Scottish Specialist Prosthetics Service

When I am introduced to new colleagues there is usually an awkwardness around what I do which goes something like this "This is Fiona, she's a physio and is responsible for the fancy limbs we use". The actual role I have as the Clinical Co-ordinator of the Scottish Specialist Prosthetic Service (SSPS) is a job title that doesn't necessarily flow off the tongue nor does it really give you any idea of what this job entails!

I started this newly created post in April 2017 having just submitted my PhD thesis and returning to the NHS after three years of University life. It was a new chapter in my career and an exciting challenge to oversee the SSPS, a service which started in 2014 on the back of the Murrison Report. The SSPS is an unusual and privileged service that provides civilians and service attributable veterans who are resident in Scotland with: microprocessor knees; multiarticulating hands; self-aligning ankle-feet and sporting devices for both upper and lower limbs. What an opportunity to oversee a service that is unique to the NHS and the United Kingdom, how hard can it be?

The entire service is underpinned by the delivery of SSPS through WestMARC (West of Scotland Mobility and Rehabilitation Centre) on the west coast and SMART (Southeast Mobility and Rehabilitation Technology) on the east coast of Scotland. All five limb-fitting centres refer to SSPS and a National panel meet monthly and approve / recommend prescriptions against the eligibility criteria. My role is to coordinate the delivery of SSPS but what is a coordinator? Apparently it is "a person whose job is to organize events or activities and to negotiate with others in order to ensure they work together effectively" so little did I realise that this role would solely rely on my influencing and negotiating skills. As a physio I can see how we are well placed to take on this role as our entire premise is to motivate patients to engage in rehabilitation and then continue to progress with their exercises while often asking them to do activities which are difficult and require hard work and commitment while at the same time continually focussing on the end result of recovery. Transferring these negotiating skills to SSPS was also probably easier as I am not a Prosthetist and never claimed to be an expert in this field which meant I could focus the conversations on the service rather than the specific prescriptions provided.

I've been in the fortunate position to have been afforded the autonomy to shape this role over the past five years and each day is different! Although my working week is usually based in WestMARC at the Queen Elizabeth University Hospital in Glasgow, I also work in the SMART centre mid-week on the lovely Astley Ainslie Hospital site and then from home when I need some peace to write reports.

What I really love about my job is the contact with clinicians across the country, many of whom I now consider as friends. Scotland is a small country and the five prosthetic services range in size and capacity so it is important to form good relationships with the prosthetists, physiotherapists, OT's, consultants and clinical scientists in each of the centres, not to mention the managers responsible for overseeing the five centres. Prior to lockdown I regularly travelled to our centres in Inverness, Aberdeen and Dundee to meet the clinical teams and speak to users of the service about their concerns and how it can be improved. Unfortunately most of these conversations now happen on MS teams, phone and e-mail, but I look forward to being able to travel again as some of the staff have changed and it is important to meet face to face to get to know each other.

The main purpose of my post I have come to realise is to be the primary contact for the staff in the 5 centres to speak to me about their concerns and issues with SSPS. As a conduit I am continuously delivering information around how SSPS can be improved and this has to be

handled tactfully and with awareness of the staff working in the service. I often say that I am "the messenger" and we all know what happened to the messenger!

So what does my working week look like? Well it starts with arranging the National MDT meeting, a panel made up of a quorum from SMART and WestMARC of senior management, prosthetists, physiotherapists, OT's and our rehabilitation consultant. Ensuring referrals are as complete as possible and inviting the referring centres to attend even if they have no referrals that month we will often ask for the SSPS sites to update on any of their complex patients so that there is a constant conversation between the centres. The meeting itself allows the expert team to discuss each referral against the criteria and make a decision of approval or not. Although it is ultimately up to the treating clinician to decide on the SSPS prescription in conjunction with the patient, we are fortunate to have experienced prosthetists on the panel who can make suggestions to the most appropriate prescriptions.

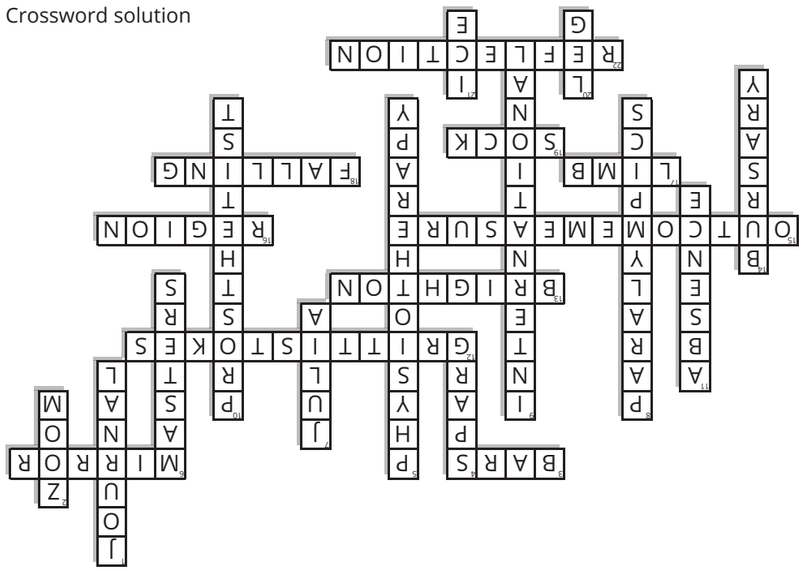
In addition we review the equipment list that SSPS has and make amendments as manufacturers come to market with new products. There is time for the panel to feedback on devices that may have changes to their service/ warranty packages or improvements that SSPS should know about. Of course a large portion of my role is administrative i.e. scheduling, chairing, minute taking and disseminating this information to all the centres.

There are many reports that I have to write for SSPS to continue to receive the annual funding from National Service Division of Scotland and these are submitted quarterly with varying degrees of information required which is set out in the Service Level Agreement. After writing the SSPS annual report there is an Annual Performance Review where the managers of SSPS meet with the funders and go through the report and look forward to any future concerns or changes. There is also an opportunity to review the referrals and accessibility of SSPS to those hard to reach areas in Scotland and more closely review the activity levels between SMART and WestMARC. All of the data asked for at this meeting and in the report is my responsibility to source, report and present accurately while always considering the audience and the level of detail required. Having spent several years in a research environment, I am more than happy with report writing and data analysis and presentation which is essential to this role.

The other aspect of my post is the ability to conduct and disseminate research and this has seen me collaborate with colleagues in both centres and submit papers to peer reviewed journals for publication while also ensuring our research is presented at conferences both in the UK and Internationally. I truly believe that the evidence generated through the provision of state of the art prosthetic limbs should be available to all to shape future services and prescription choices, which in turn can improve the quality of life of our patients.

After writing this I will be starting on the finance report for SSPS and so it's off to create another spreadsheet and hopefully balance the books!!!

Crossword solution



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