Advanced Composite Fibre Technology to Improve Outcomes in Orthotic Science

Range of Motion
Thuasne USA now offers three reliable OTS carbon AFOs to address a variety of clinical indications.

![Graph of Load (lbs) vs. Dorsiflexion]

Proven Durability
For a diverse range of clinical indications and patient needs, you can rely on the performance, quality and durability of our growing range of composite AFOs. The SpryStep, SpryStep Max, and SpryStep Plus were independently tested by mechanical engineers using a surrogate leg and a loaded cyclic testing device, achieving two million cycles with no structural deficits.

*Cycle testing performed by an independent lab under ISO10328 servo pneumatic test system. This standard is typically used to test prosthetic feet.*
Welcome

The editorial committee are excited to deliver the December edition of The Review. The theme of this edition “Taking the Next Step” offers examples of O&P moving forward, with new clinical approaches, international practice, business, education, advocacy and beyond. While many of us are entranced by the future of O&P, the focus of this edition recognises that as practitioners, we are all moving toward the future, extending ourselves and the lives of those that require our services, step-by-step and day-by-day.

Contribute to the Review

We invite content from all members to help us showcase the valuable contribution our profession makes to the Australian healthcare system and to highlight the unique skill sets of our practitioners. Suggested articles include:

- Feature articles on clinical topics, case studies or research
- Exploration of issues that impact our profession in Australia
- Introductions to new orthotic/prosthetic technologies
- Member reviews of new technologies
- Overviews of education events
- Contributions from other allied health and related disciplines

This publication is distributed to over 500 O&P practitioners, AOPA education subscribers and related industry partners. It is a fabulous resource for members as a platform for celebrating our profession and the important role of orthotist/prosthetists.

Contribute by contacting any member of the Editorial Committee or the National Office (admin@aopa.org.au). We also encourage you to suggest ideas or tell us what you’d like to see in upcoming editions.

Reminder: Earn extra CPD points

Remember that you can top up your CPD points just by reading The Review. Keep an eye on your email for a link to our Review online quiz, where you can earn valuable CPD points by answering correctly!

Finally, a huge thank you to all our authors for sharing their time, insights and expertise with us – this publication would not be possible without your contributions!

With special thanks to the AOPA Editorial Committee:
Asumi Dailey / Jess Grant / Cath Matthews / Lainie Plummer / Claire Skewes

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For further information on items in The Review contact:
Editor, AOPA Office
P.O. Box 1132 Hartwell VIC 3124
T. 1300 668 194 / 03) 9816 4620
F. 03) 9816 4305
E. admin@aopa.org.au
Thoughts from the National Office

The end of the year is upon us and it is a great time to reflect on the successes achieved in 2018.

Improving O&P policies

AOPA certified practitioners provide essential orthotic and prosthetic services to Australian consumers, but often within challenging funding arrangements and policies. There have been few funding arrangements more complex to work within than the Private Health Insurance (PHI) arrangements for “aids and appliances” and the Department of Veterans’ Affairs (DVA) arrangements for the provision of prefabricated orthoses under the Rehabilitation Aids and Appliances Schedule (RAP). O&P’s providing orthotic services within these systems have been faced with constant administrative challenges, impacting on the delivery of services, based on the lack of recognition and absence of service schedules for orthotist/prosthetists.

In this issue, we are pleased to outline the advocacy work undertaken by AOPA in this area. This has led to some highly successful outcomes, including recognition of the profession as an allied health provider, as well as the establishment of profession specific schedules of services within both PHI and DVA funding policies.

I would like to highlight the work of Luke Rycken in developing the case for change and advocating on behalf of the profession and consumers accessing O&P services. This work is our most successful advocacy work to date, which will have a significant impact for AOPA certified practitioners. The AOPA Board would also like to acknowledge the contribution of our Corporate Partners, without which these activities would not be possible. I look forward to updating the membership as the changes are rolled out which will begin in 2019.

Growing education activities

In 2018 AOPA also extended our education activities. We have incorporated online business modules as part of our education calendar, aiming to reach as many practitioners as possible and assist in extending O&P career pathways into private practice.

A review of the National Education Delivery Committee activities has also been undertaken and in 2019 the annual calendar will be enhanced by two Best Practice Forums. These will explore the clinical evidence on discrete topics and allow practitioners to engage with experts in evidence based practice and the translation of research into practice. This format was explored at the AOPA Congress as part of the workshop program and we are pleased to have Dr Saravana Kumar assisting in the delivery of these online forums.

The growth of the AOPA National Congress as a member education and networking event continued in 2018. This year the event attracted more than 370 delegates across the 3 days. We were pleased to welcome International Keynote speaker Dr Stefania Fatone to deliver an inspiring opening address, and to hear from Mr Frank Busino-Raiola on the future of surgery and prosthetics. Supporting our keynotes were wonderful free paper contributions from the Australian profession and exciting forums exploring policy developments and the future of disruptive technology in the delivery of O&P services. Additional events included the Student and Early Career Professional technical workshop and the Student Event, hosted by OttoBock, a full day Technician Education stream hosted by OttoBock and Össur and our unforgettable Congress Dinner. I hope you enjoy reflecting on the event in this edition and we look forward to seeing everyone in Melbourne in 2019.

Promoting your role and services

Alongside our policy and education activities has been an increased focus on connecting the profession and creating a united O&P presence online. AOPA uses Twitter, LinkedIn and Facebook to communicate the role of the profession to the wider community.

In 2018 we extended this work with further development of our clinical specialties to promote the breadth and depth of the O&P clinical role in Australia. We also ran a campaign #EmpoweredBySport during the Invictus Games to highlight the important role of sport in the rehabilitation journey and the need for essential recreational O&P services to support this.

Finally, we have challenged the media on the consistent representation of 3D printing as a clinical solution to “disrupt” prosthetic services, rather than the exciting technical opportunity that it provides. We are grateful to the O&P community for the engagement in our activities that resulted in numerous media interviews throughout the year, allowing us to promote your role and services. We encourage the profession to assist AOPA and shift our profession’s identity from technology and products, to people and services. Members and clinical practices can assist with this identity shift by sharing clinical, client and goal-orientated stories. It is time to #ReframeTheStory for O&P in Australia!

Thank you for your ongoing support of the Association, the direction taken by our National Board and the activities of the Office team in 2018. Wishing all our members, supporters and colleagues a safe and enjoyable holiday period. We look forward to reconnecting in 2019.
Chair’s Report December 2018

2018 has been a particularly exciting year for AOPA and the profession. We have many indicators that the Association is well positioned for the opportunities and challenges of 2019 and beyond.

With high expectations following last year’s successful Congress, we welcomed over 370 delegates to the Gold Coast for #AOPA18. This is just the second time the AOPA Congress has been held outside of Victoria since the event’s inauguration in 2010, and has been widely reported as the most successful yet. Attendees enjoyed an outstanding program of keynote speakers, free papers and workshops, as well as the usual annual social program. But what makes the AOPA Congress unmissable in these rapidly changing times is the opportunity to engage with new technology in the exhibition hall, to hear policy and education updates direct from many of our profession’s most important stakeholders, and to network with our rapidly expanding workforce as we welcome new graduates, recent migrants through our IHP program, and new companies exhibiting emerging technologies. For those members who have missed out on recent AOPA events, please don’t miss the opportunity to attend AOPA’s 10th Annual Congress in Melbourne in 2019. Stay connected and relevant amongst the rapidly changing face of our profession!

One of the highlights of this year’s Congress for many members was, perhaps surprisingly, the Policy Update Forum. The Forum included updates on Advocacy work from Luke Rycken, a summary of the NDIS Assistive Technology Re-design project presented by Jackie O’Connor on behalf of NDIS, and a description of progress being made towards simplified access to orthotic services from Kristy Domitrovic of Private Healthcare Australia. But none of these three updates had quite the emotional impact as that of Catherine Walsh, Executive Director Wellbeing Programs at Department of Veterans’ Affairs, when she definitively announced that a Fee Schedule will be introduced for orthotist/prosthetists in 2019, enabling Veterans to access the necessary clinical services required for the provision of Mobility and Functional Supports. The span of work from AOPA which has led to this announcement predates the careers of almost all practicing orthotist/prosthetists in Australia, and the number of contributors has been immense over many years. In recent years, the increased professional capacity of our office team, and increased engagement from our growing membership base, has helped to elevate the importance and quality of work being done in this area. We recognise the dedicated work of Luke and Leigh in this area, and the support of our Corporate Partners which helps to resource the office for creating meaningful change.

The prominence of adaptive athletes in Australia continued in October, with the widely publicised Invictus Games in Sydney.

With a high proportion of competitors who are amputees, the Games brought a very public focus on assistive technology and prostheses throughout the competition. With media attention on our profession, AOPA seized the opportunity to contribute to the story as conversations swayed from ‘high-end’ microprocessor technology, to 3D printed hands and carbon fibre running blades. Out of the attention on tech and hardware, our members sought to reframe the story with shared experiences of the clinical services, relationships, care and professionalism demonstrated by clinicians, and the importance of the ‘soft technology’ which sits behind the hardware and helps to inform and empower the service user in a dignified way. A high volume of dialogue was shared on Facebook and LinkedIn, addressing some of the complexity behind the provision of our services.

“As this complexity increases, so too does the need for orthotist/prosthetists to continue to extend their competencies to service the needs of the Australian population”

As this complexity increases, so too does the need for orthotist/prosthetists to continue to extend their competencies to service the needs of the Australian population. As a professional conduit between our service users and their functional and mobility goals, we are required to draw on knowledge of an expanding range of options of techniques, materials and components. Practitioners are finding the need to balance the draw towards niche specialties within our field, while retaining the breadth of skill required to meet our clients’ needs in their achievement of goals. This challenge requires practitioners to go the next step in O&P, and this edition of the Review gives us some insight into the ways our members and their organisations are taking that on.

I wish everyone a meaningful and safe break over the Christmas season and look forward to continuing the journey in 2019.

Paul Sprague, Chair, AOPA
Congress 2018 – Embrace the past, design the future

The warm weather and stunning venue formed the perfect backdrop for #AOPA18, with over 370 attendees converging on The Gold Coast for three days packed full of collaboration, education and networking.

The foyer of The Star Gold Coast was a buzz of excitement as O&P colleagues from all over the country converged on the convention space for the start of our nation’s premier O&P event. As the first event outside Victoria since #AOPA15 in Adelaide, anticipation was high, with a new location and high expectations built upon the successes of previous AOPA Congresses.

The annual event is the cornerstone of CPD for the profession and with over 370 attendees gathering together, opportunities abound to share knowledge and experiences from all over the nation.

Feedback from members continues to highlight the importance of Congress in providing a chance to keep up to date with O&P developments from both within and beyond the clinic, learn the latest clinical approaches from both local and international leaders of the profession, examine the latest offerings from suppliers, and explore practical new ways of improving daily clinical practice.

Consolidating and expanding further on the success of the three-day program format from recent events, #AOPA18 featured a familiar structure of a day dedicated to practical workshops followed by two days of speaker presentations, while also offering two new full-day streams. Created especially to cater for the needs of specific members of the O&P community, the Student/Early Career Professional and Technician streams were strongly attended, providing attendees with exposure to topics relevant to their career stage and specialty. See page 9 for a full outline.

With this year’s workshops at 85% capacity, attendees had the opportunity to further their understanding of diverse areas of O&P practice, such as ligament knee bracing, upper limb myoelectrics, composite materials, clinical gait analysis and contracture management, to name a few. Furthering the broad workshop offering, AOPA workshops focused on the process of implementing evidence into clinical practice. Feedback from this year’s workshops has once again highlighted the value attendees place on practical, clinically orientated, hands-on content, with the wrap up from the day reaffirming the work of the Congress Committee in delivering a highly successful workshop program.

The Friday speaker program started with much anticipation in the full plenary as The Hon. Greg Hunt MP, Minister for Health, officially opened proceedings with a prerecorded message recognising the important work of orthotist/prosthetists in the prevention and management of chronic disease in Australia.

The theme of #AOPA18, ‘Embrace the past: Design the future’ was then explored by Australia’s most published O&P, Dr Stefania Fatone. In her first invitation to Congress, the Professor of the Northwestern University O&P program eloquently discussed how understanding of past successes and failures informs current knowledge gaps so we can identify what we want to know in order to improve practice.

The keynote presentation served to thoughtfully frame the broad range of presentations that followed. The free paper program delivered a broad view of both familiar and specialist topics, including case studies exploring posterior tibial tendon dysfunction, fracture management, paediatric cranial deformity, bilateral transfemoral osseointegration, cosmetic prostheses and congenital focal femoral deficiency.

The AOPA forum on disruptive technology served to broaden the scope of thinking around the provision of O&P devices and services, with AOPA executive Leigh Clarke challenging the profession to ‘Reframe the story’ to focus on delivery of outcomes rather than provision of devices. Further highlights of the Friday program included an update on recent changes to O&P education at La Trobe University, as well as a suite of presentations outlining prosthetic management informed by latest research, and practical considerations of implementing new technology into orthotic practice.

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The Hon. Greg Hunt MP, Minister for Health opening AOPA18

Keynote Dr Stefania Fatone

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In between sessions, the largest Congress exhibitor hall to date was alive with conversation fuelled by coffee from the Össur Café. The range of exhibitors included both the familiar and the new, with booths of all sizes catering for a broad spectrum of local and international providers of O&P products and services.

Following the AOPA AGM, attention shifted to the year’s biggest social event on the O&P calendar. With attendance at capacity and conversation flowing, AOPA Chair Paul Sprague seized the microphone to introduce the evening’s MC, Lynne Weir, recognising her contribution to the O&P community. Lynne’s highly entertaining photo collection featuring some well known leaders of the profession sporting extravagant retro haircuts, along with her on-stage selfie of the dinner were moments to remember.

The final day of Congress began with a keynote presentation and exploration of the future of targeted muscle reinnervation techniques from Mr Frank Bruscino-Raiola from the OI/TMR program at The Alfred Hospital. The AOPA Forum then provided an opportunity to examine AOPA’s recent policy successes, including advocating for access to Medicare for orthotic/prosthetic services and the announcement of the recognition of orthotic services under the Department of Veterans’ Affairs. The final session of the Congress examined the future of orthotic/prosthetic practice and featured a closing presentation by AOPA Chair, Paul Sprague, who detailed the future of clinical practice in Australia.

As the curtain was drawn on another Congress, attendees from across the country and around the world mingled at the Össur after party, reflecting on new inspiration and ideas on another year of practice. The after party provided a time to meet informally and farewell colleagues at the conclusion of the three-day event.

Attendees were incredibly positive about their experience at the AOPA Congress. A vast majority reported that they were extremely satisfied with the sessions, presenters, exhibition space and venue. A number of attendees reported that the 2018 Congress was the ‘best congress yet!’ In particular, attendees were happy with the wonderful venue and staff, as well as the opportunities to hear from orthotic/prosthetic experts and to celebrate recent announcements regarding improved recognition of orthotic/prosthetic services.

The AOPA Congress Committee wishes to thank everyone who attended the 2018 Congress. The Committee would also like to thank each of the sponsors, exhibitors, workshop hosts, speakers and volunteers. Their involvement in the Congress enables the event to continue and plays a critical role in supporting the future success of the orthotic/prosthetic profession.

The AOPA Board is incredibly grateful for the support of the 2018 Congress Committee, without whom the event would not be possible: Jess Grant (Convenor) / Dr Sarah Anderson / Shanelle Fogarty / Hannah Graham / Simon Yap / Peter Kneebone

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i-Limb®

The i-Limb product range combines functionality with style. Individually motorised digits, stall detection and the unique software used to control the i-Limb hands result in highly versatile prosthetic hands optimised to meet a wide range of needs.

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The i-Digits is a customised prosthetic device for individuals with partial hand loss or deficiency. Suitable candidates present with partial hand loss where the level of loss or deficiency is distal to the wrist and proximal of the metacarpophalangeal joint.

i-Digits™ Quantum  i-Digits™ Access
Technician, Student & Early Career Professional Events

This year’s AOPA Congress featured two new full-day streams for technicians and early career professionals as interest in relevant professional development continues to expand across the entire O&P community.

Technician Stream

This year’s AOPA Congress offered a whole day program specifically for technicians. Featuring a combination of content delivered in practical workshops, attendance at the AOPA ‘Disruptive Technology’ forum and access to the latest offerings in the exhibitor hall, the event was supported by Össur & Ottobock, who also held morning and afternoon sessions.

Lisa Scheri, Technician from APC Prosthetics was in attendance and was happy to share her experience.

“It was my first time attending the AOPA Congress technical event this year. Technicians of all ages and experiences levels attended the day, some who were new to the industry and others who had been working within the industry for decades. The session was aimed to cover all levels of experience and backgrounds.

The morning session was hosted by Ottobock at the Southern Cross University. This session started with a presentation about different resins and their characteristics. A couple of resins were new to me and I am now interested in testing them in my workplace. We also discussed carbon and its properties which was good for me to refresh and familiarise myself with the different features of it. After the morning presentation there were several stations such as draping a check socket, working with the L.A.S.A.R posture, PETG drapes, amongst others. We could ask questions, talk about the different steps of each process or offer our approach to the material. We then returned to The Star and attended the Disruptive Technology forum. It covered the advantages and disadvantages of 3D printing and I also spent some time walking through the exhibition area and browsed the different booths and products that were on display.

In the afternoon, the technical stream continued. Nathan Wagner from Össur presented about the fabrication of silicone for i-digits and other upper limb applications. He explained and showed us the process of making a silicone socket for i-digits; starting with the check socket to the end product. Working for APC Prosthetics, where we also have a silicone lab, I knew about some steps of the process but not all and learnt more about it during the presentation.

I really enjoyed going to the AOPA Congress and enjoyed the technical event, I am looking forward to the development of a technician forum in which technicians from all over Australia and New Zealand can exchange their experiences or ask for suggestions.

It was nice meeting people and seeing familiar faces and it was great to talk to technicians from other facilities about different ways of using materials or approaching challenges that can occur during manufacturing prostheses or orthoses.”

The Early Career & Student Stream

The Early Career and Student Stream was an exciting addition to the 2018 program. For the first time, 24 students and early career professionals were provided the opportunity to attend a whole day workshop focussing on advanced fabrication and assessment skills. Throughout this hands-on workshop, delegates rotated through six stations, each featuring a different advanced technique, such as the use of alignment lasers, the application of elevated vacuum suspension systems, interacting with emerging plastic technologies and effective carbon lamination layups.

AOPA Student members were also given the opportunity to present at the Ottobock Student Event, followed by a keynote presentation given by Dr Stefania Fatone about developing leadership. Five excellent presentations were made by students with Rose Mason winning the best speaker award for her presentation about the evidence base for the treatment of idiopathic toe walking.

Numerous O&P leaders made themselves available to attend the event, providing students with the opportunity to network following the presentations.

Places for these events filled early this year. Keep an eye out next year for opening of registrations and make sure you secure your preferences early to avoid disappointment.
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Three functional modules: Design and functionality can be optimally adapted to the user's needs

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Harnessing disruptive technology to create opportunity

The AOPA Forum at Congress 2018 featured a panel of 3D printing and technology experts. Opened by AOPA Executive Officer, Leigh Clarke, the following excerpt calls for the profession to #ReframeTheStory of O&P in Australia.

I am regularly asked to provide my thoughts on “disruptive technology” and “3D printing” in O&P.

My expertise is in regulation, codes, standards, workforce development and policy – very far from the world of 3D printing and technology – and so these enquiries are often made with an expected position. Regulation and standards has a core purpose to protect the public and manage risks, such as those associated with new manufacturing techniques and service models. Regulation of 3D printing is an important conversation, but there is a more important and strategic conversation to be had by the O&P profession.

Instead, I wish to share my personal viewpoint and experience of how the profession communicates to the public and the link between the story that we tell about our profession and our services and the “disruption” movement for O&P services.

Everyday technology is enabling unqualified hobbyists and the maker community to move directly into complex areas of health and directly supply to clients. Previously this direct supply has not been possible, not due to regulation, but by complex technical and manufacturing processes. The absence of skills or equipment to laminate or drape mould has provided a barrier to people playing in our space. But 3D printing has changed this. Entry to play and dabble in prosthetic service provision is as low as $299 for an entry level 3D printer and as accessible as Aldi!

This accessibility and affordability to technology is removing the manufacturing barrier for unqualified people to experiment in areas typically viewed as the scope of an O&P. 3D printing has enabled our scope of practice to be challenged and has accelerated makers, hobbyists, engineers, and other professions practising and experimenting in orthotics and prosthetics and the emergence of direct supply from non-O&Ps. The community is embracing new technology and new approaches to traditional supply and O&P services are often reported as being outdated or the profession as unwilling to solve access and affordability issues. And whilst much of this is misguided, our message regarding safe and effective clinical (not technical) services simply does not compete with the child who has an upper limb deficiency with a shiny new 3D printed prosthetic hand.

It is hard for a profession to have this discussion in the public space. Public safety is a concern and all providers of orthoses and prostheses should be held to the same regulatory requirements. But there are some important questions to be asked about how and why this disruptive, direct service model has evolved?

So, I encourage all certified practitioners to consider: are you a maker of things? Do you fit a leg? Or do you promote quality of life? Or support participation? It is imperative that the language of the profession shifts away from products and technology and towards people and services. If the profession is clearly defined, communicated and understood, then the role and application of 3D printing as a technical solution will be clearer to all.

It is worth reflecting on photography printing services, being the most well known example of an industry which failed to communicate its services to the community. It is the technical area of “print film” that was disrupted, however Kodak failed to recognise that its service related to the creation of memories, not the printing of photos. By aligning itself with a technical offering, this company was immediately disrupted when that technology was revolutionised by digital advancements and placed directly in the hands of consumers. And it might seem like a stretch to compare that to the O&P industry and profession. But if the story we tell is that we fit “prosthetics”, then the technical revolution will have an impact, because now anyone can fit prosthetics.

3D printing should not be considered disruptive technology, but rather a technical revolution for O&P manufacturing and one the O&P profession can simply add to its tool kit. But it is essential that we also shift the stories that we tell and align the profession’s image with the clinical service and outcomes that we enable.

We need to shift the stories that we tell and re-craft the description away from “I fit prosthetics”, because for $299, now everyone can fit “prosthetics” … #ReframeTheStory
ROM RECOVERY SOLUTIONS FROM SHOULDER TO TOE

JAS GL from medi
JAS GL systems from medi offers full-range, bi-direction Range of Motion (ROM) therapy in a ready fit, low-profile design reinforced for additional durability.

Shorter Treatment Times
The proven JAS SPS protocol involves short sessions to achieve steady and permanent gains in joint ROM. This protocol — supported by decades of successful clinical results and thirty published studies — can reduce treatment time by up to 80% compared to alternative systems.

Patient-Controlled Therapy
JAS GL devices allow patients to control the degree of stretch at all times with an infinitely adjustable turning knob. Pain, risk of tissue injury, and muscle guarding are virtually eliminated as a result.

Unequaled Patient Compliance
The JAS-patented product design offers comfort, ease of use, patient-controlled therapy, and short treatment time — fostering unmatched patient compliance and delivering superior clinical outcomes.

Features:

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<td>Patented Motion Arc™ Technology</td>
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<td>Assures precise and pain-free end-range stretch; eliminates muscle guarding</td>
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<td>Simulates manual stretch</td>
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Contact medi for JAS GL ROM Recovery Solutions.
Advocating for Orthotic Services in Medicare

Campaigning for orthotic services to be included in the Medicare Benefits Schedule has been a highlight of AOPA advocacy work throughout 2018.

Medicare and Allied Health Services

The Medicare Benefits Schedule (MBS) is a listing of health services subsidised by the Australian government. The MBS includes a number of allied health services that may be accessed by persons with chronic disease, including diabetes, arthritis and stroke. Orthotic services are currently not listed in the MBS, preventing persons from accessing Medicare benefits when visiting an orthotist/prosthetist.

Advocating for Orthotic Services

AOPA has been advocating for the inclusion of orthotic services in the MBS for the past five years and completed an initial business case that was presented to parliamentarians in 2015. This year, the AOPA team began a new campaign to advocate for the inclusion of orthotic services and developed a proposal demonstrating the benefits of orthotic services for Australians with chronic disease.

Better Outcomes for Persons with Diabetes

The proposal demonstrates the benefits of orthotic services for individuals and the community with an emphasis on the impact and benefits for persons with diabetes. In Australia, 1.7 million persons have diabetes and diabetes-related foot disease leads to 4,400 amputations, 1,700 deaths and 27,600 avoidable hospital admissions every year. It is estimated that the total annual cost of diabetes is $14.6 billion and at least $1.6 billion of this expenditure is directly attributed to diabetes-related foot disease.

Orthotic services are integral in preventing and managing the complications associated with diabetes-related foot disease. Better access to orthotic services will provide an 81% reduction in the incidence of ulceration and lower limb wounds as well as a substantial reduction in the incidence of amputation. However, these interventions will only be effective if they are provided at the appropriate time and subsidised under the MBS.

Orthotic Services and Economic Benefits

Implementing access to orthotic services in Australia will provide substantial economic benefits. In the United Kingdom, access to orthotic services in the health sector alone provides savings of at least £390 million per annum and the most recent Australian research estimates that, if all persons at risk of developing diabetes-related foot ulcers were to receive optimal care, including orthotic services, the cost savings are likely to be $540 million per year.

Community Support for Orthotic Services

AOPA has worked closely with research and community organisations to support the campaign. Diabetes Australia, Stroke Foundation, Allied Health Professions Australia, Limbs 4 Life and the Australian Diabetes Society all supported the findings of the AOPA proposal.

Campaigning for Orthotic Services

The AOPA team visited Parliament House in August 2018 to meet with the Minister for Health campaigning for orthotic services to be included. Members of Parliament, Senators and advisers, as well as the Department of Health, to support the proposal. In each meeting, parliamentarians received the proposal and were provided with an explanation of the significant benefits of improving access to orthotic services under Medicare.

The Minister for Health referred the proposal to the MBS Review Taskforce for their consideration and recommendation. The MBS Review was established in 2015 and includes an Allied Health Reference Group that is responsible for considering existing and possible MBS items, and then providing recommendations to the Taskforce and Minister for Health. Leigh Clarke and Luke Rycken presented to the Allied Health Reference Group on 20 August 2018 in Canberra and outlined the substantial benefits of orthotic services and the need for subsidised access to orthotists for persons with chronic disease.

The Allied Health Reference Group are expected to provide their recommendations to the MBS Taskforce in December 2018. This may include a recommendation that the Minister for Health include orthotic services in the MBS. The AOPA team will provide an update about any recommendations and the possible inclusion of orthotic services as soon as possible.
Introducing Improvements for Orthotic Services under the DVA

The way orthotists deliver services to the Australian veteran community is changing.

**Department of Veterans’ Affairs**

The Department of Veterans’ Affairs (DVA) is an Australian Government agency that provides support and information for war veterans, members of the Australian Defence Force, members of the Australian Federal Police and their dependants. The DVA is responsible for providing a range of health care and rehabilitation services.

**Improvements for Orthotic Services**

The Department of Veterans’ Affairs (DVA) and AOPA have been working together to bring the provision of orthotic services to the Australian veteran community under DVA’s health care arrangements.

Under current DVA arrangements, orthotists are able to claim clinical time and the cost of orthoses for custom orthoses only through prior financial authorisation arrangements. However, orthotists cannot claim clinical time for prefabricated and customised orthoses supplied by the DVA Rehabilitation Appliances Program (RAP).

In early 2019, these arrangements will change. Orthotists who accept DVA’s health care arrangements will receive a DVA provider number and a standardised schedule of fees and requirements and will be able to claim through the Medicare payment system. With these changes, eligible orthotists will be able to claim clinical time spent assessing, prescribing, fitting, reviewing and repairing orthoses. Eligible orthotists will also be able to claim the cost of supplying the orthoses product (if not supplied by RAP), regardless if the orthoses is prefabricated, customised or custom.

Claiming should be faster, which also means DVA clients will have faster access to orthotic services.

**Becoming a DVA Provider**

To become a DVA provider, orthotists will need to apply. DVA is currently working through the fine detail and once finalised, will explain how to become a DVA provider through information published on DVA’s website and through AOPA, so keep an eye out for these.

DVA recognise that whilst many orthotists work closely with veterans and war widow/ers all the time, as these changes are introduced over the coming months, it is timely to revisit the framework under which orthotic services are provided to the veteran community.

**DVA Health Care Cards**

A DVA client coming to your practice could be a veteran, a war widow/er or a dependent child who has a DVA Gold or White Health Care Card. A DVA Gold Card entitles a DVA client to receive treatment for any health condition, regardless of whether the condition is related to war service or not. A DVA White Card entitles a DVA client to receive treatment only for DVA accepted injuries or conditions that are related to their war service.

More than 190,000 DVA clients have a Gold or White Card and the average age is 71 years old. Of note, nearly three per cent are under the age of 30. Sixty-four per cent of DVA Gold or White Card holders are male.

**Rehabilitation Appliances Program**

DVA’s Rehabilitation Appliances Program, or RAP, provides aids and appliances (assistive technology) to eligible Gold or White Card holders to help minimise the impact of their disabilities and maximise independence and quality of life. RAP provides safe and appropriate aids and appliances according to an assessed clinical need. To access RAP, a Gold or White Card holder needs to visit a GP or medical specialist, who will identify a clinical need and be able to prescribe an aid or appliance, or refer them to an appropriate assessing health provider. Assessing health providers include podiatrists, occupational therapists, chiropractors, osteopaths, physiotherapists and orthotists.

Aids and appliances available are listed on the RAP National Schedule of Equipment (the Schedule). The Schedule outlines the criteria for prescription, whether DVA’s approval is required, and the limits on the quantity and duration of supply. There is an
orthoses category on the Schedule, where orthotists can assess and prescribe orthotic items upon referral from a GP or medical specialist. The Schedule is available on the DVA website at: www.dva.gov.au/providers/provider-programs/rehabilitation-appliances-program-rap

Changes for Orthotic Services

These changes, including a schedule of fees and faster claiming, will be introduced in 2019 and represent a significant improvement for the Australian veteran community and orthotist/prosthetists.

Supporting Members to Implement Changes

AOPA will be hosting education sessions across the country to support members as new programs are implemented in the new year.

Throughout the new year a number of new programs and initiatives will be introduced, including for services under the Department of Veterans’ Affairs and the National Disability Insurance Scheme. These changes will require orthotist/prosthetists to understand new registration and billing processes.

To support members to implement these changes in both public and private settings, AOPA will be hosting a series of events across the country between March and April as part of the 2019 Education Program.

The AOPA team will provide a detailed overview of the changes, a step-by-step guide to registering and providing services, an update regarding future changes and further information about how these will affect your practice. Each event will allow members to ask about the changes, consider how they will modify their practice and explore the opportunities to improve service-delivery.

AOPA will also be working with funding bodies and agencies to publish a range of resources to assist members to implement new programs. These will be available as new programs are introduced.

The AOPA team will provide more information about the new programs, education sessions and publications in the new year as part of the 2019 Education Program. Visit the AOPA website at aopa.org.au/member-education for more information and updates.
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Comparison of the posterior tibial load provided by a static PCL brace and the dynamic force of the Rebound PCL brace. Graph adapted from LaPrade et al.

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Latest updates on the National Disability Insurance Scheme

The NDIS is in its fifth year of rolling out and a number of changes are planned that will change how orthotist/prosthetists work with participants.

Orthotics and Prosthetics in the NDIS Today

Orthotist/prosthetists and participants are continuing to experience significant administrative delays for approval of proposed services and difficulties in seeking resolutions with local NDIA offices. Seventy percent of members have identified that administrative delays are their major concern and the AOPA team has been working with individual members to identify processes and local offices that may be contributing to delays. This typically occurs where the knowledge of local NDIA staff is inadequate or where staff are relying on outdated or improper policies. AOPA encourages members that experience any issues to contact the AOPA office so that the team can assist in working to improve processes at the policy and local level. AOPA has supported members on numerous occasions to intervene and assist with individual concerns.

Sixty percent of members have also reported concerns about the role of state schemes (e.g. the State Wide Equipment Program in Victoria) in contributing to delays experienced by NDIS participants and providers. The AOPA team has worked with both the NDIA as well as State and Territory assistive technology schemes to identify delays and advocate for improvements. It is expected that there will be a substantial reduction in delays following a range of initiatives and campaigns planned over the next six months.

Assistive Technology Redesign

The NDIA are continuing to implement the Assistive Technology Redesign Project proposed in early 2018. The first phase of the Project was implemented in May 2018 and allocates up to $1500 into the Core budget of participant plans to facilitate the purchase of low-cost AT as well as approximately $520 of Capacity Building to support assessment and support with AT selection and training. If this low-cost pathway is utilised, participants are not required to provide quotes or assessment templates prior to purchasing.

The process for higher value AT (including most orthoses and prostheses) is unchanged and providers are still required to complete assessment templates or provide the necessary information so that the NDIA can determine if the proposed service meets the reasonable and necessary criteria. The new process for higher value AT is currently expected to be trialled in 2019 and will reduce the need for quotes and is intended to support participants to engage directly with providers to seek orthotic and prosthetic services. Learn more about the new process for AT on page 22 of the June 2018 issue of the AOPA Review or on the AOPA NDIS online resource.

Assistive Technology Templates

The AT General Orthotics and Prosthetics Assessment Template includes all of the information that is needed for the NDIA to determine if a proposed service meets the reasonable and necessary criteria (under section 34 of the NDIS Act 2013). The NDIA is not able to provide services that do not meet the reasonable and necessary criteria and it is important that providers include all necessary information to avoid the need for further communication.

The AOPA team is aware that some local offices have indicated that quotes and information must be provided using the AT Prosthetics and Orthotics Template—this is incorrect. The Template is not mandatory and providers are not required to use this Template in the provided form. If providers do choose to develop their own document, it should include at least all of the information contained in the template. If a local NDIA office indicates that you must use this form, please contact the AOPA team and we will provide assistance.

As part of the proposed improvements to the provision of assistive technology in the NDIS, the NDIA have announced a plan to improve the AT Assessment Templates. The improved templates will include questions that allow providers to more easily provide information relevant to the reasonable and necessary criteria. AOPA will provide more information once new templates are released and members are encouraged to contact the AOPA team for assistance, advice and support.

Contact Local Assistive Technology Teams

The NDIA have created emails for local offices for enquiries relating to assistive technology. Members should use these emails to:

- provide the NDIA with an assessment and/or quote necessary to approve AT indicated as ‘quote required’ in a participant’s plan;
- ask about a request for AT submitted for an NDIA decision;
- alert the NDIA that a request needs urgent attention—information regarding urgent requests should include ‘Urgent Action Required’ in the subject heading.

The emails can be accessed at: www.ndis.gov.au/about-us/contact-us/at-offices.html

Questions?

AOPA is able to provide assistance, advice and support to members regarding the NDIS. Updates can be found on the AOPA website www.aopa.org.au/publications/ndis If you have any questions about the NDIS, contact the AOPA National Office on (03) 9816 4620 or luke.rycken@aopa.org.au

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Advocacy

Leigh Clarke / Executive Officer, AOPA / leigh.clarke@aopa.org.au

The landscape of Private Health Insurance in Australia

There are 35 Private Health Insurers in Australia that provide hospital and general treatments policies, including rebates for community-based allied health services. Insurers typically use ‘schedules’ to determine which health services are eligible for a rebate. Schedules include information relevant to a particular profession and contain descriptions of services and item codes. Before being used by Insurers, schedules are typically endorsed by Private Healthcare Australia, the representative body for 20 registered health funds. Once a schedule has been endorsed, it is then implemented by individual funds that will independently determine the rebates applicable for each service.

Private Health Insurance and orthotic/prosthetic services

Previously, there has not been a schedule for orthotic/prosthetic services. Whilst insurers have typically provided rebates for a range of orthoses, they are often managed under disparate ‘Aids and Appliances’ schedules. There are at least 35 different Aids and Appliances schedules and each contains different terminology and codes. This approach to providing rebates has made it difficult for consumers to understand if the orthotic/prosthetic services they are receiving will be eligible for a rebate and has prevented the recognition of clinical services provided by orthotist/prosthetists. The use of Aids and Appliances schedules has also created unnecessary administrative burden for both practitioners and insurers, prevented the profession from accessing the HICAPS claims system and limited the ability of insurers to collect accurate service data.

Improving recognition of orthotic services

In 2016 the AOPA team began a campaign to implement a Services Schedule for the orthotic/prosthetic profession. AOPA presented to the General Treatments Committee of Private Healthcare Australia, who provided positive feedback and requested that we begin drafting a Services Schedule for orthotist/prosthetists and engage with the Pedorthic Association of Australia to ensure the inclusion of footwear services in the Schedule.

AOPA worked closely with the Private Practice Reference Group to develop the Orthotic, Prosthetic and Pedorthic Services Schedule. The first draft of the Schedule was submitted in December 2016 and in July 2018 the final version of the Schedule was presented to the General Treatments Committee. The process of finalising the schedule was constrained due to a number of delays as a result of the complex policy and legislative changes occurring in the Private Health Insurance industry throughout 2017–18. The final Schedule was provisionally endorsed by the General Treatments Committee in September 2018 and includes clinical consultation items, orthosis items defined by body segment (rather than device type), footwear items and repair/maintenance items.

AOPA hosted Kristy Domitrovic, Director of Engagement, Policy and Strategy for Private Healthcare Australia at the 2018 AOPA National Congress who announced the endorsement of the Schedule and future steps for implementation. Adoption of the Schedule by Insurers will require them to establish new administrative processes, amend current policies and modify policy premiums to reflect the changes introduced by the Schedule. The amendment to policies and premiums is subject to Government approval that requires insurers to submit policy and premium changes to the Minister for Health in November each year, followed by approval and the implementation of any changes in April. Significant policy and legislative changes in the Private Health Insurance industry have limited the capacity of funds to implement the new Schedule in 2018/19.

The next steps for Private Health Insurance and orthotic services:

In early 2019 AOPA will begin negotiations with individual funds to support the adoption of the new Orthotic, Prosthetic and Pedorthic Services Schedule. Insurers that adopt the Schedule are likely to implement changes as part of the 2019/20 approval cycle. This will allow policy holders to better access orthotic and prosthetic services from April 2020.

Private Health Insurance endorses service schedule

AOPA is excited to announce significant progress in the recognition of orthotic services by private health insurers.

“The final Schedule... includes clinical consultation items, orthosis items defined by body segment (rather than device type), footwear items and repair/maintenance”

Private Health Insurance endorses service schedule

AOPA is excited to announce significant progress in the recognition of orthotic services by private health insurers.
Tackling Paediatric Prosthetic Management

Management of clinical presentations that we are unfamiliar with present new challenges, but can help our personal and professional growth and be very rewarding.

Clinical Assessment, Goals and Treatment

J is a 3-year-old bright, happy and active little boy who suffered Group A Streptococcal sepsis, resulting in partial amputation of all four limbs in late 2017:

- Left partial 1-3 fingers and thumb,
- Left 1-5 toes,
- Right transradial, and
- Right transtibial.

Once his body fought off the infection J’s recovery was fast. Supporting him to re-gain independent mobility and function quickly became priorities for his family. Orthotic Prosthetic Solutions were engaged by J’s family and Perth Children’s Hospital for prosthetic assessment and treatment planning.

Initially J displayed weakness with hip and core control, and his left ankle dorsiflexion range was limited due to a period of plantarflexed positioning in a cast. J’s right transradial limb and left partial foot were heavily scarred (skin grafting), but his right transtibial limb was well healed and in good condition.

J’s developmental age and interests along with his parent’s goals and expectations (Giavedoni, 2016; Cummings & Kapp, 1992) were the primary considerations when planning prosthetic intervention.

J’s young age meant a short attention span and lack of insight into treatment requirements. Managing to sit or stand still for more than a few seconds was near impossible for him. Some strategies that worked well were:

- Massaging plaster on limb a little longer whilst casting to relax J, and drawing pictures on the cast as it was setting,
- Getting down on J’s level and engaging in play when fitting prostheses, and
- Running and playing with J during fitting and evaluation sessions, whilst a fellow clinician recorded gait video.

At initial right transtibial prosthesis fitting J was able to take some wobbly steps with upper limb support. His partial foot and transradial limbs were still bandaged which added a challenge to standing/walking. For children of his age gait re-education is not usually necessary, as the transition to age-appropriate mobility happens independently (Scott-Wyard, 2016). J was provided with his transtibial prosthesis to use at home. Within a week of having the bandaging removed he was already able to balance and walk independently. J’s other devices were fitted at this time and he quickly learnt to independently run and play, even at the beach, which made for an enjoyable holiday.

Positive outcomes were achieved for J as evidenced by use of his lower limb devices for mobility and play. He continues to wear them all day every day, when shod. J largely rejected his transradial prosthesis due to the passive nature of the hand. He found it quicker and easier to just use his residual limb. He is currently functioning sufficiently with his partial hand so has not had prosthetic intervention for this limb as yet.

Treatment Challenges and Customisation:

It was important to bond with J early on as he had a fear of health professionals following his in-hospital experiences. Some of the strategies that worked well were:

- Dyeing prosthetic socks green (J’s favourite colour),
- Allowing J to select designs and colours for his prostheses,
- Introducing toys into the clinic space, to encourage J to explore and interact, and
- Making gait analysis a fun activity with bubble blowing wands.

According to his parents, J’s initial goals included getting up on his feet again and participating in play activities, including outdoors on their home property. The family also had a beach holiday planned so it was important that J be able to use his prostheses during this.

J’s initial prostheses included a passive transradial prosthesis, and an exoskeletal transtibial prosthesis comprising of specific surface weight bearing supracondylar socket, polyethylene foam liner, paediatric foot (dynamic keel), and an auxiliary sleeve. Both prostheses had a dinosaur design of J’s choosing on the outer. The use of foam liners provided for growth adjustments, and supracondylar suspension encouraged independent don/doffing. J was also fitted with a partial foot in-shoe foot orthosis with toe filler, urethane lining and carbon foot plate. This was to reduce shear forces on his scarred foot and to increase the toe lever.

J’s developmental age and interests along with his parent’s goals and expectations (Giavedoni, 2016; Cummings & Kapp, 1992) were the primary considerations when planning prosthetic intervention. Advice from colleagues, experienced in paediatric management, was to engage in play activities with J during treatment sessions.

Positive outcomes were achieved for J as evidenced by use of his lower limb devices for mobility and play. He continues to wear them all day every day, when shod. J largely rejected his transradial prosthesis due to the passive nature of the hand. He found it quicker and easier to just use his residual limb. He is currently functioning sufficiently with his partial hand so has not had prosthetic intervention for this limb as yet.

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J’s young age meant a short attention span and lack of insight into treatment requirements. Managing to sit or stand still for more than a few seconds was near impossible for him. Some strategies that worked well were:

- Massaging plaster on limb a little longer whilst casting to relax J, and drawing pictures on the cast as it was setting,
- Getting down on J’s level and engaging in play when fitting prostheses, and
- Running and playing with J during fitting and evaluation sessions, whilst a fellow clinician recorded gait video.
Rejection of the R TR prosthesis use was cause for concern, as mastering bimanual activities in place of using the residual limb and contralateral hand can work to encourage body symmetry and more upright posture (Hill & Yip, 2016).

With bilateral lower limb amputation, anthropometric data (Vrdoljak, 2017) was used to estimate foot length alongside J’s growth. He has grown 7.5cm since initial evaluation but there has been no significant increase in body weight as yet. His prosthetic foot length has been increased by 1cm during this time.

**Current Assessment and Goals**

Currently J enjoys playing indoors and outdoors with his brother and friends, and swimming at his local pool. He wears his transtibial prosthesis every day and in the pool.

J is able to grasp objects with his upper limbs but has a skewed body midline. An active prosthesis is indicated (Egermann, Kasten & Thomsen, 2009) as he also speaks of wanting another hand to use. He uses his partial hand well for finer motor control such as holding a crayon.

Video gait analysis of J running shows stable step through pattern in the sagittal plane, with bilateral hip and knee flexion through mid-stance (running posture), short right step length compared to left, and broad right arm swing for balance in the coronal plane.

J is limited with his mobility as well as with daily activities due to his amputations. His isn’t able to dress himself fully nor pull his pants up after toileting. He is restricted in barefoot activities due to the shortened toe lever and fragility of skin on his foot.

J’s parents’ goals for him include to:

- Kick a soccer ball
- Be active like a regular child, run around and keep up with friends
- Access swimming pool and participate in pool-based activities
- Improve self-care capability, i.e. independent dressing, including prostheses
- Prepare socially for kindergarten next year

**Future Treatment**

Funding approval has been received for trial of a silicone partial foot and an externally powered transradial prosthesis. Trials are under way. If successful, fitting with these will work toward facilitating normal physical development and social inclusion as J transitions to kindergarten. With a silicone partial foot J will be able to run around unshod over summer. It is hoped that a functional TR prosthesis will encourage bimanual activities and independence with dressing.

J’s parents report that there are plans for reconstructive plastic surgery of his partial hand to improve function, and laser treatment of the scarring on his left foot and right transradial limb.

When J’s growth allows for a change in prescription a more dynamic prosthetic foot will be trialed, and if deemed appropriate partial finger prostheses may be considered as part of treatment.

Regular reviews will continue to optimise fit, function and prescription of prostheses as J develops and his requirements change.

Whilst treating J has required heavier reliance on theoretical knowledge due to lack of experience with this demographic, it has been a fun and fulfilling learning experience to date.

With the support of: Andrew Vearing (OPS), Brendan Cahill (OPS), Grant Crotshwaite (Ottobock)

**References:**


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  - > 100 kg body weight bilateral joints
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Managing chronic rib and iliac crest contact pressure

A case of inadequate off the shelf solutions led to an innovative approach in the orthotic management of contact pressure as a result of severe inoperable scoliosis.

Patients with severe, inoperable neuromuscular scoliosis are dependent life-long upon high posture support systems in wheelchairs for mobility. When the patient is seated in the upright position gravity further forces the posture out of alignment, to the point where the ribs come into contact with the pelvis. This in turn develops a painful impingement of the rib and iliac crest; causing skin breakdown, discomfort and pain. Chronic and persistent contact pressure between the patient and their device and/or the patients’ own skin surfaces is often followed by the development of skin lesions that could potentially progress to decubital ulceration.

In my 35 years’ of clinical practice as an orthotist, I have had in my care a subset of these patients whom experienced problems with contact pressure between their ribs and iliac crest. Pre-fabricated postural supports, corset-type or rigid spinal orthoses did not serve these patients adequately. To address patients’ individual needs, I custom-fabricated each a foam wedge orthosis to be positioned or fitted – by the carer – prior to the patient sitting in their wheelchair. This proved remarkably effective at eliminating the contact pressure between their rib and iliac crest, consequently reducing patient discomfort and the development of decubital ulcers.

I was approached by a specialist physiotherapist devoted to prescribing seating for residents living in Norwich, a high support needs Hostel under accommodation Services, for Disability Services Commission (DSC) in WA. A parent-carer reported to her that her child, who has cerebral palsy, lived with an intellectual disability and uses a wheelchair due to severe scoliosis and spasticity, had benefited from a small pillow placed between the rib and iliac crest. This proved remarkably effective at eliminating the contact pressure between the rib and iliac crest, consequently reducing patient discomfort and the development of decubital ulcers.

After several trials and custom modifications, I settled on the use of a low-density foam wedge, that was inexpensive, widely available and an easily workable material. A patient could be assessed and fitted with this orthosis efficiently, with the initial and final fitting taking less than an hour to complete.

The process I developed and followed in clinics is detailed as follows:

- The patient lays down on the contralateral side to the impingement, to facilitate the separation of the rib from the iliac crest. The concavity to which the wedge orthosis will be located then becomes well-defined.
- UltralonPE (closed-cell polyethylene foam, 2.5 cm thick, 30kg/m³) was the material of choice, being first heated and then moulded to assume the shape of the concavity between the patient’s rib and iliac crest. It was wrapped directly over a body stocking, with an elastic Velcro® binder to provide stable positioning of the orthosis between the rib and crest.

The wedge was to be fitted daily to the patient, prior to seating them in the wheelchair, followed by adjusting other custom seating to accommodate the new posture with the orthosis.

I was able to apply this simple and inexpensive approach to aid several patients experiencing similar issues with contact pressure between their ribs and iliac crest. This technique was also adopted by the specialist physiotherapist as an adjunct to fabricating special seating for other patients that used wheelchairs. The foam wedges proved to require minimal maintenance or adjustment, with each wedge serving its patient for at least two years. Upon follow up, the following was commonly reported about those fitted with the foam wedge orthosis:

- Ease of daily fitting and cleaning by carers;
- Improvement in the patients’ overall posture;
- No indications of skin breakdown at the treatment site;
- A reduction in crying and fidgeting by the patient when seated in the wheelchair;
- Patients were able to tolerate longer periods in the upright sitting position;
- Patients were more relaxed when seated in their wheelchairs;
- Patients were observed to have greater ease with their breaths.

This experience has taught me that a technique can be inexpensive and simple but yet prove to still be an effective solution for the challenges posed to orthotists serving patients with a variety of needs.
Conducting a Feasibility Study - An Orthotist’s Perspective

Feasibility studies provide a structured framework to explore the clinical application of new technology, whilst also accepting and taking into consideration detailed feedback from clients and their families.

Why implement a feasibility/protocol study?

In a busy community Orthotics Clinic, it is difficult to find time to not only implement a new technology and fine tune its use, but also objectively evaluate its success and failures. A feasibility study provides the tools required to evaluate a new technology in a methodical and consistent way and helps to establish operational feasibility and acceptability. As a first point of evaluation of an intervention of interest, feasibility studies permit assessment of study processes, resources, management, and treatment issues (Best et al., 2014) to explore whether the future trial can be done, should be done, and if so, how (Eldridge et al., 2016). Perhaps more importantly, feasibility studies provide us a way to understand the challenges and options for real-life community use of a new technology. It can assist us as clinicians to prescribe and introduce new technology in a manner that will provide the best outcomes for our clients.

We conducted a feasibility study to explore the benefits of Functional Electrical Stimulation (FES) technology (WalkAide® device) for paediatric and young adult clients with Cerebral Palsy (CP) (Evans et al., 2016). We wanted a systematic but timely means to understand if – and how – this technology would suit our clients’ needs, to develop an appropriate fitting protocol, and then to evaluate our protocol as a foundation for a future randomised controlled trial (RCT). Within this study, we were also keen to investigate appropriate complimentary physiotherapy intervention to facilitate motor learning and optimise the potential for clients to achieve their goals.

As an expensive product (in the orthotic world at least), it was important that we did not simply purchase WalkAides only for them to end up at the back of the cupboard where we hide our other failures. Having a clear and systematic approach to implementing a FES system was an important assurance that we would give this ‘gadget’ a fair and comprehensive trial before applying to funding bodies (or hiding it away!)

At the time of our study, there was limited evidence on the effectiveness of the WalkAide in children living with CP. Since then, a series of studies with children with CP have shown that the WalkAide can improve lower limb mechanics in walking (Pool et al., 2015a), increase muscle volume and strength (Pool et al., 2016) and support achievement of clients’ goals (Pool et al., 2015b). In a review of the effect of FES on activity and participation in children with CP, Chiu and Ada (2014) concluded that FES is more effective than no FES intervention, but has a similar effect to walking training by a physiotherapist. No studies had considered the effect of WalkAide use with targeted motor learning-focused physiotherapy (MLP) sessions and this became our primary focus.

We were also interested in interviewing families and clinicians to find out how the WalkAide fit into everyday life, when compared to a more traditional orthotic prescription. Whilst functional skills and gait would be objectively measured, it was also important to consider whether the WalkAide was associated with improvements in everyday advanced gross motor skills like agility, balance and jumping as well as client goals.

Method

We applied for and received philanthropic funding to run a ‘mixed method single group feasibility study’. While Novita’s Research & Development team assisted with this study, we recommend linking with a university for methodologic support if such personnel are not available.

Participants were three males and three females with unilateral CP, 6 to 13 years old and GMFCS Levels I and II (high functioning), who were evaluated at five time points (baseline, 8 weeks, 12 weeks [post-WalkAide acclimatisation], 20 weeks and 28 weeks) under three conditions. All participants followed this numbered timeline:

Phase 1: 8 weeks of current orthotic wear plus fortnightly 60 minute specialised MLP sessions;
Phase 2: 8 weeks of WalkAide wear (post-4 week acclimatisation and targeted >6 hours/day) plus fortnightly MLP sessions;
Phase 3: 8 weeks follow-up post-WalkAide discontinuation and without MLP sessions.

Primary Outcome Measures

Quantitative

• The Challenge (Wright et al., 2018); a fun and dynamic assessment of advanced gross motor skills that are considered important for children and youth to be able to perform at school and in recreation.
• Canadian Occupational Performance Measure (COPM; Law et al., 2005); a self-perceived assessment of goal/task orientated performance and satisfaction over time.

Qualitative

• Semi-structured interviews with participants, parents, Orthotists and Physiotherapists. All interviews were conducted by a Novita Research Officer who was not involved in the orthotic or physiotherapy intervention.
• Feasibility indicators
• Related to study processes (e.g., recruitment/consent/retention rates), resources (e.g., participant/assessor burden, WalkAide wear time), management (e.g., intervention fidelity) and treatment issues (e.g., adverse events)

Results
Quantitative data indicated participants had mixed responses to FES. The clinical importance of the combined MLP & FES intervention over MLP alone was unclear. Four participants completed the protocol. One participant showed good adherence with the MLP sessions but suffered a medical incident unrelated to the study which necessitated his withdrawal after three weeks of WalkAide acclimatisation at the start of phase 2; another also showed good adherence with the MLP sessions but was unable to tolerate the WalkAide stimulation sensation and after six weeks of wear (including the four week acclimatisation phase) decided to discontinue use.

Completion of four 60 minute MLP sessions in the first phase of the study was associated with achievement of the child’s activity and participation goals (measured by the COPM) and clinically important improvements in their advanced motor skills (measured by the Challenge) for five participants. Children who then completed the MLP & FES phase of the study wore the WalkAide for an average of 5.94 hours/day, indicating acceptance of the device. Three of the four children who completed this phase showed further increases in their goal performance and satisfaction and two demonstrated further clinically important improvements in their Challenge score. Qualitative (interview) data allowed an in-depth exploration of response variability and highlighted the importance of a child’s activity and participation goals, family engagement and therapist enthusiasm and understanding. The WalkAide was beneficial for activities such as walking, running, football, basketball, dance while other skills e.g., jumping, balance, skipping were reported to be more difficult.

“I think that my WalkAide is better...when I’m just doing stuff like running...but it’s really hard doing my fitness games with my WalkAide because it really tires my leg out.” [“Serena”, participant in the study]

Physiotherapists stated that the WalkAide increased participants’ awareness of particular movement patterns and also appeared to increase their motivation to try activities.

Discussion
Results indicated that FES & MLP is associated with clinically important improvements, in advanced gross motor skills and achievement of client goals, for some participants but not all. The WalkAide device needs strong family and user commitment and the large size and weight were a concern for all users, even those with good compliance.

Our feasibility study enabled us to learn from clients, families and clinicians about the MLP & FES intervention and determine our next research steps. The improvements associated with MLP sessions reinforced the need for an RCT to compare the FES & MLP intervention with MLP sessions alone, and this study is currently underway at Novita. The feasibility study was instrumental in optimising the RCT design and reinforced the importance of good goal setting, having a repeatable WalkAide fitting protocol and minimising assessment fatigue. It also served as a timely reminder that ‘real-life’ benefits of Orthoses are the true testament of our success, and that we cannot forget that improvements seen in the clinical room need to translate when the client leaves our environment.

Conclusion
This feasibility study enabled Novita’s orthotic service to develop a clear protocol for fitting FES (WalkAide) devices, designed in collaboration with participants and their families. Understanding the technology and its user impact has given us the ability to discuss all aspects of the device with an informed, holistic and client-centred approach.

Acknowledgements
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A full list of references is available by contacting the author.
Beyond fabrication: Applying technology to optimise practice

In the context of rapid and ongoing change, how do we best prepare clinicians to engage technology to provide excellence in clinical care?

The profession of Prosthetics and Orthotics seems to be sitting on the crest of a wave of major change. For years we’ve been anticipating a digital revolution to change the way we practice and although we’re seeing the tide gradually come in with new products and technologies, at this stage most of us still appear to be working in the same way we have for years. New technologies such as 3D scanning and fabrication will undoubtedly offer benefits to the way our profession works but these systems still face some hurdles before they reach the tipping point of broad uptake and implementation. As we patiently wait for the wave to crash, we have an opportunity to consider how we would like to see our professional practice change, and how we can utilise new technologies to improve the nature of our professional interaction, and ultimately, the user-experience of our clients.

It’s not just about fabrication! Applying technologies to optimise clinical outcomes.

Although most of the discussion about new technology focuses on digital methods of mould-taking and fabrication, it’s just as likely that the technical development of client assessment, analysis and reporting technologies will have as big an impact. Emerging technologies should enable us to re-evaluate our practice and approach to treatment on a much broader and holistic level. Rather than just replacing one step in the current process with a digital alternative, we have an opportunity to look at the broader process itself to see where we can improve the client experience and outcomes. Rather than just getting rid of the plaster room, we may be able to re-focus our practice to be client-focused with an emphasis on goal attainment and striving to achieve the best possible outcomes.

As we see new digital solutions float in on the tide we’re observing a constant and rapid improvement in the usability of these systems. Improvements in the intuitive nature of software development will likely mean new systems can be learned quickly with minimal training. Within this context it is reasonable to assume other disciplines will take advantage of these new systems in an attempt to expand their scope of practice.

Already there are many disruptors and start-ups offering a range of technologies with the promise of providing cheaper and better devices. In this scenario, what will it be that differentiates the service provision of an orthotist/prosthetist to that of a Physiotherapist with a digital scanner? Our profession needs to focus on the client, the client-interaction, and to develop methods of ensuring our service provision is of the highest possible standard, with the best possible outcome provided to each client we see. We argue that utilising new technologies to assess, prescribe, optimise, and evaluate the clinical outcomes of our treatment is central to how we define our role as orthotist/prosthetists.

Embedding digital technologies in the P&O curriculum

This climate of looming change creates a challenge for us teaching in the Prosthetics and Orthotics programs at La Trobe University. We are tasked with simultaneously preparing students to be capable novice practitioners within the current environment as well as preparing and challenging them to take our profession forward into unknown futures, both exciting and daunting. Within the Orthotics stream at La Trobe, it’s this idea of achieving and evaluating ‘optimal client outcomes’ that we’ve chosen to focus on as we prepare students for the future. We anticipate that the technological tools will continue to change, however it’s the principles around assessing and refining results that we’re trying to instil in our students.

One example of this is in the third year of our program, where our students prescribe and manufacture a foot orthosis for the...
contralateral foot of a client with a trans-tibial amputation. The students are presented with a specific goal for treatment e.g. offload the 4th metatarsal head region. Students fabricate a foot orthosis using traditional methods, and once fabricated, the orthosis is fitted in a clinical appointment. Whereas traditionally that would be the end of the process, our students now see this fitting as a midpoint in the treatment. They proceed with the clinical process by using a pressure mat to evaluate and improve the clinical outcome (Figure 1). Based on the data obtained from the ‘initial fit’ scan, the device is modified to improve the result in relation to the original goal. This process continues: results are evaluated using technology, the treatment is modified, the results are evaluated, until the ‘optimal’ result is achieved (Figure 2). The process is then objectively recorded and documented. The clinician can confidently assure the client, referrer, and funding agency, that the best possible outcome has been achieved.

Another example is a project where an Ankle Foot Orthosis – Footwear Combination (AFO-FC) is tuned, or optimised, using a 2-camera gait analysis system. The students are instructed to intentionally take a cast in a position of 10° plantarflexion on a student partner and a solid AFO is fabricated in this position to simulate a client with a plantarflexion contracture. The students fit the AFO and modify a shoe to optimise the kinematics of the tibial shank using a two-camera video system. Successful completion of this process requires an understanding of normal shank kinematics, and the effect of heel height and sole rocker upon it. Gait videos are recorded, and angular data is analysed and transferred to a gait graph. Changes are made to the intervention, in this case: the shoe, in response to the data until the tibial shank is optimised to as close to a normal pattern as is possible. Students then verify the effects of this optimisation by conducting clinical outcome measures in an ‘optimised’ (modified shoe) and ‘non-optimised’ (standard shoe) alignment. Whereas traditionally the client may have been provided with a mal-aligned AFO that provided some improvement, our novice clinicians can now confidently report and verify that the best possible outcome for the client has been achieved. They have the data to prove it.

Both examples utilise technologies that are easily accessible at a relatively low cost, are currently available on the Australian market and can be replicated in clinical practice. However, in an environment of ever-changing and developing technology, the technology itself is not the important factor here, this will continue to change as the tide comes in. The focus for our students, and hopefully for our profession, is that technology enables us to evaluate and optimise the clinical outcomes of our treatment to meet the goals and needs of clients. When the wave finally crashes, and we’re flooded with a multitude of technological options, our focus should be on ensuring we’re providing a higher quality of treatment than ever available to our clients before. And not only that, but also the highest quality orthotic or prosthetic treatment available in a changing healthcare environment.

If you’d like to know more or are interested in collaborating on implementing new technology and processes, please feel free to contact the authors.
Changes to O&P courses at La Trobe University

Changes to the funding of combined bachelor/masters degrees across allied health and dentistry has resulted in a course redesign for orthotics and prosthetics for students commencing in 2020.

Earlier this year, the Federal Government announced that it would cease to provide Commonwealth Supported Places for the masters component of combined bachelor/masters degrees. In response, La Trobe University is transforming these combined degree courses across allied health and dentistry. Subject to approval by the University’s Academic Board, students commencing first year in 2020 will enroll in a four-year Bachelor of Orthotics and Prosthetics with embedded honours.

As a follow up to our recent presentation at the Australian Orthotic Prosthetic Association (AOPA) Congress, we are pleased to provide this summary of the changes for AOPA members.

Current courses

La Trobe University currently offers two degree courses that qualify graduates to work as prosthetist/orthotists. The Bachelor Applied Science/Master Clinical Prosthetics and Orthotics (BAS/MCPO) is undertaken by most students over four years by taking additional credits the summer semester. Students with a previous bachelor qualification and relevant experience may enter into the two-year Master Clinical Prosthetics and Orthotics (MCPO), where the curriculum mirrors the third and fourth years of the BAS/MCPO (Figure 1). Graduates from these two degree courses will have demonstrated skills and competencies for autonomous professional practice commensurate with the Australian Qualifications Framework (AQF) level 9.

Figure 1. Schematic of La Trobe University’s current two course offerings: Bachelor of Applied Science/Master Clinical Orthotics, as well as the two-year graduate entry Master Clinical Prosthetics and Orthotics.

The majority of students (90%) enrol direct from secondary school into the BAS/MCPO. Their participation in higher education is typically supported by a Commonwealth Supported Place (CSP) where the cost of the degree is shared between the student and the Federal Government. For example, in 2019 a prothetic/orthotic student on a CSP will make a maximum contribution of $9357 toward the cost of their degree per annum. The remaining two-thirds of the cost will be paid for by the Commonwealth.

What was the impetus to change the current course offerings?

In the lead up to the 2017-18 Federal Budget, the Commonwealth proposed a raft of changes to the way higher education is funded including: reducing the threshold at which graduates repay their Higher Education Loan Program (HELP) debt and the removal of 3000 CSPs for post-graduate course work programs.

Considering the significance of the proposed changes, the Higher Education Reform Package was closely scrutinised by the Senate. The bill was subsequently rejected in October 2017. Fast forward to the Mid-Year Economic and Fiscal Outlook, the Government announced that it would look for similar savings from the higher education budget without the need for legislative change. In early 2018, the Commonwealth advised that it would cease funding the masters component of combined degree programs, such as the BAS/MCPO.

What are the consequences of this change to the Commonwealth’s funding arrangements?

Assuming we did nothing, students enrolled in the BAS/MCPO would be required to pay the full-fee cost of the masters component of their degree. Given the student contribution for the bachelor component, the total the cost of the degree would approach $100,000.

Given that cost of tuition would be prohibitive for most students without Commonwealth support for the full duration of their degree, there are risks to the course and the pipeline of graduates into the profession as a result.

What steps have been taken to minimise the risks to the course and profession?

To minimise these risks, all allied health disciplines were asked to explore options for a new course model in conjunction with key stakeholders including: professional associations, accrediting authorities and members of the Course Advisory Committees which include senior clinicians, academics and students.

A series of guiding principles were established to frame the exploration. For example, any new course would need to: comply with the standards set forth by the Tertiary Education and Quality

Standards Association (TEQSA), meet requirements of accreditation authorities as well as be attractive to prospective students so as to maintain similar numbers of enrolments. Since La Trobe University’s current combined degree courses are recognised by their respective accreditation authorities, and demonstrably prepare graduates for professional practice, there should be little need for major curriculum revision acknowledging that there are opportunities to tweak the curriculum to improve the student experience or better sequence learning across subjects.

So what might a new course look like?

In designing a new course, we have conceptualised a comprehensive pathway of training from sub-bachelor qualifications (e.g., diploma for prosthetic/orthotic technicians) right through to doctoral level studies (Figure 2).

The Bachelor Prosthetics and Orthotics with embedded honours (Figure 2, blue row) is the centrepiece of the proposed course suite which includes the following features:

- Entry for school leavers with scored Victorian Certificate of Education (VCE)
- Four year program with two semesters of study each year (Figure 3); thus eliminating the need for summer semester study
- Potential for pathway into third year for prosthetic/orthotic diploma graduates with relevant experience, such as overseas trained clinicians
- Curricula will mirror the existing BAS/MCPO with minor adaptations:
  - Familiar combinations of existing subjects: human biosciences core of anatomy and physiology (Figure 3, Year 1), evidence based practice, biomechanics and clinical assessment techniques (Figure 3, Year 2), prosthetic/orthotic evidence and clinical subjects (Figure 3, Year 3)
  - Increase prosthetic/orthotic content in first year with two clinical subjects given reduced emphasis on public health and elective subjects (Figure 3, Year 1)

- Develop core clinical and technical competencies earlier in the course (Figure 3 Year 1) with the intent to extend these to better prepare graduates for everyday clinical encounters
- All students will undertake either an industry or research honours project (Figure 3, Year 3-4) commencing with project planning in semester 2 year 3.
- Existing blocks of clinical placements remain unchanged (Figure 3, Year 4); irrespective of honours pathway
- Graduates will have very similar professional practice competencies to the current BAS/MCPO, acknowledging minor changes to the AQF level commensurate with a reduced emphasis on high-level critical appraisal skills, as an illustrative example

As part of the proposed course suite, we have also envisaged a:

- Two-year diploma for prosthetic/orthotic technicians (Figure 2, light blue row) which might include tuition for graduates to work clinically within a limited scope (e.g., clinical consult as part of a prosthetic cosmetic cover, or a straight forward off-the-shelf orthosis). Given the Commonwealth has muted the introduction of CSP for sub-bachelor degrees, this may provide a means for existing technicians to receive formal qualifications and access bachelor degree studies.
- One-year advanced practice Masters (Figure 2, red row) to extend the existing scope of practice of bachelor graduates (including experienced clinicians). This degree may include training in a range of clinical specialties (e.g., orthotic management of scoliosis) that could be taken as an entire degree or as a single subject for micro-credentialing.

While we can imagine models that might be attractive to prospective students – for example, a diploma for prosthetic/orthotic technicians that could be taken online in partnership with a current employer where the technical work could be undertaken on-the-job - careful consideration will be required to determine a viable model in concert with the sector.
Figure 3. Schematic showing high-level course design with sequence of existing, revised and entirely new subjects stratified by year level and semester.

### So what are the next steps?
While a high-level course has been designed – including the names of subjects and sequencing of subjects across year levels – work is required to design the detail of the course and individual subjects. This detail is necessary to ensure that the proposed course: complies with the standards set forth by TEQSA, is attractive to prospective students and financially viable. With these additional details, the University’s Academic Board can make an informed decision about the proposed course in early 2019.

Following Academic Board approval, the curriculum development will begin early next year in anticipation of a first year intake commencing semester 1, 2020.

### I have queries about the course. Where can I get more information?
While we have sought to promote this change to the course through regular updates to members of the Course Advisory Committee, meetings with the Australian Orthotic Prosthetic Association, and more recently presentations at the AOPA Congress, we realise that members of the profession may have questions.

If you do have questions, please feel free to reach out to: Anthony Francis, Course Transformation Lead. A.Francis@latrobe.edu.au
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The G3 clinician kit includes the following:

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- 2 x Remote Controls (Left and Right)
- 4 x Quick Fit Electrodes (2 x Left and 2 x Right)
- 15 x Pairs of Round Gel Electrode Pads
- 1 x User Manual
- 1 Charger with USB Cable
- 1 x Carry Bag

Each clinic can order one paediatric and one adult clinician kit.

G3 Patient Kit

Round Electrodes
Standard Round Electrodes with a snap-fit attachment for connection to the stim unit via the cuff.

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Replacement Cuff
Available in Adult or Paediatric versions, and Left or Right options.

Quick Fit Electrode
This innovative electrode design is attached to the cuff via the two press-stud attachments. Electrode positioning is consistent, and the stimulation may be more comfortable and effective for some users. Two quick-fit electrodes are included in the Patient Kit, so that the user can try both the Round Electrodes as well as the optional Quick Fit electrodes.

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Transitioning from Student to Clinician

For many O&P students, the transition from university life into paid employment can seem both exciting and daunting. Three recent graduates share their experiences of taking their first leap into the profession.

Kayla Doyle c-OP AOPA
Barry Leech Prosthetics & Orthotics, Cairns

I cannot believe it was a year ago that I was on the frantic search for a position within the O&P industry. I, and all of my peers were looking for the same thing, a clinical role as an orthotist/prosthetist. I knew everyone in my year level would be graduating with the same qualification as me, so I had to ensure I was doing everything I could to stand out.

Volunteering was the best thing I did. I was really lucky to have found a company close to home who were happy for me to help out in the workshop. I learnt so much from a technical point, I started to consolidate the clinical skills I had learnt at uni and started to expand my professional network.

I met my now employer at the Ottobock student event at the 2017 AOPA Congress. It was at this event that I realised that in order for me to find a great position in O&P, I was going to have to leave my comfort zone and move away from home.

It’s a scary thing when you have always lived with your parents. I moved from Melbourne to Cairns (almost 3000kms) and knew no one but my colleagues-to-be. It took a few months to settle into a routine, but after making some friends and exploring the local area, Cairns is now starting to feel like home.

I realise now, that as students, we are more prepared knowledge-wise than we give ourselves credit for. On my first day as a qualified clinician I had no idea what notes to take with me, so I took nothing. It seems crazy spending so much time writing notes at uni and not taking them to at least your first day. But we really do have a great foundation of knowledge and learn so much more once working within the industry.

My advice to current students who are about to graduate is to chase every opportunity with both hands and a great big smile on your face because only great things can come of it.

Lachlan Sens c-OP AOPA
Orthotic Centre Limited, New Zealand

Upon recent graduation from La Trobe University, I started working as an Orthotist at the Orthotic Centre Limited (OCL) in New Zealand. Although I was excited to graduate, I had mixed feelings about commencing my first clinical job. At the time, my mindset was that this would be the most crucial decision of my career, as it would not only get me a foot in the door, but it would have the greatest impact on shaping me as a clinician.

Near the end of my final year, I was fortunate to secure a position at the OCL. This meant packing up my life and starting my career in a new city in a foreign country. In many respects, the move overseas was different to what I expected, the most difficult part being away from my family, friends and familiarity. However, New Zealand has a lot to offer: picturesque scenery, travel opportunities, a laid-back way of life, and mountain biking, all of which have made it feel like home.

I found my first few months to be a very steep learning curve: navigating the patient/clinician interaction, and focusing first and foremost on how to actually fit orthoses! I started working...
on a rotation servicing Auckland’s three largest hospitals, but my current patient load is now heavily based with private and Accident Compensation Corporation patients. One of the biggest challenges working privately is having to consider and navigate the unique funding streams of NZ health, which was an unexpected but enjoyable aspect of my work.

As New Zealand does not have its own O&P course, all of the clinical staff have been hand-picked from a variety of countries. It’s been an amazing opportunity to work with such a diverse range of people with differing education and experiences. Working at OCL has helped shape me as a clinician and has been a huge benefit to my career. I would highly recommend to all new graduates to consider an international move as it has been the best experience to start my career as an O&P.

Natasha McDowell c-OP AOPA
Prostek, Adelaide

The end of university was a stressful time; finishing final placements and preparing for the last OSCE whilst simultaneously writing and submitting numerous applications – it’s all out chaos. But in the long run it was worth it to be able to write “orthotist/prosthetist” as my occupation for the first time.

After submitting what felt like 100 applications, interview anxiety and receiving abundant “unsuccessful applicant” emails, I was fortunate to be offered a clinical position at Prostek, a private O&P clinic in Adelaide. Having never lived out of home except during placement, it was a daunting idea to move interstate where I knew just three people.

Of course, as a new graduate I was nervous about the upcoming role. But from the word go I was made to feel like part of the team and definitely not the burden I was worried I might be. I was able to slowly but surely gain confidence in myself as a competent clinician. This was thanks to the unwavering patience of the experienced clinicians and technicians, allowing me to learn and progress at my own pace; from shadowing colleagues to being shadowed and ultimately working independently. I still get a little nervous before fitting custom devices, but I’m now confident in my knowledge to make the necessary adjustments for best fit and function. And when in doubt, I know I can turn to my colleagues for advice as they’re always willing to lend a helping hand.

Outside of work I was encouraged to participate in community activities, explore my new home and see what Adelaide had to offer. I joined a sports club and through that made new connections which helped me feel like part of a community. At times I found it tough and longed for the ease of being at home in a familiar environment but I don’t regret my decision to move interstate. My family and friends have continued to support my endeavors, and it’s been fun to hear the news and stories from my peers who have moved all over Australia and overseas. I’m still learning so much as a clinician and I’m excited to see where it can take me in the future.

Looking for a new graduate role to start your career as an orthotist/prosthetist? In addition to developing your own professional networks, be sure to regularly check the employment section of the AOPA website at aopa.com.au/employment.

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“The loneliness of the expatriate is of an odd and complicated kind, for it is inseparable from the feeling of being free, of having escaped.”
— Adam Gopnik, *Paris to the Moon.*

My name is Michael and I am a Prosthetist and Orthotist, working as a dual practitioner for Opcare in London, UK. I moved to London in 2017 after 3.5 years working in Australia as a Prosthetist across Queensland and New South Wales. Moving from my hometown, Melbourne was a surprisingly easy move, settling into each new job and location with few challenges. With every move I nervously anticipated the deal breaking hurdle to arrive: either the financial burden of moving life interstate or the social upheaval. But this never eventuated and so the thought of moving internationally came as a yearning to see the world and that next big challenge to relocate. This transition has also been surprisingly easy and simple. I have come to find that at the end of the day we are more flexible to change then we give ourselves credit for and when in a challenging situation we can surprise ourselves with how resourceful we are and how well we cope. Instead of simply surviving, we flourish.

Why the change?
Relocating to the UK felt like a natural move; as with most Australians I grew up with friends completing gap years abroad and England was a common destination. I had established myself in Australian practice but as the international industry originates in Europe I felt a pull towards learning from the region that led the world for such a long time. The prospect of travel is an undeniable draw to working internationally, giving you the time, location and financial backing to see the world. The qualification between UK and Australia is the same, so I did not have to complete a bridging course. In fact, I felt after 3 years practicing I was independent enough to transition to the clinically hands-on UK.

The process of moving to the UK
In comparison to Australia, there is a shortage of O&Ps in the UK due to a large population and insufficient graduating clinicians to service this growing need. There is a desperate need for clinicians outside Scotland in particular, so living and working around London is quite achievable.

In the UK, O&P services are provided largely by private companies who are contracted by the National Health Service to provide this service in hospitals. Despite this, multi-disciplinary team structures are so engrained that everyone feels part of the same team. While working in Australia, I enjoyed working in the public system, however I also found the private structure in the UK to be strongly collaborative.

Applying for jobs was straightforward as the HR departments are very accustomed to employing Australians. Health and Care Professionals Council (HCPC) is the registration body that governs all Health Care workers in the UK. Applying for HCPC is the longest part of the process, involving requesting several documents from La Trobe University. Processing time with HCPC can take up to 6 months, so getting onto this as soon as possible will be advantageous and will reflect well when applying for jobs.

Key differences from the Australian system
Australians fit quite well in the UK system. A good work ethic and solid training in clinical and manufacturing, as well as a good basis in research, allows for an easy transition into the workforce. The biggest difference with working in the UK is the separation of Clinical and Technical services. This means that our time is mostly spent with the patients, however our grounding technically means we can prescribe custom devices precisely, with a high level of quality control. The majority of the UK operates through central fabrication of devices, which I was sceptical of originally, but the finesse of technical skills in these facilities means rapid manufacture and high-quality products. Clinically, I feel I make a greater impact with the majority of my time spent with patients; as an industry there is a push for Orthotists to take a more holistic view of patient care, to engage in more than just the provision of devices and to refer to other services.

The use of CADCAM is also fully utilised in UK day-to-day practice, which means rapid modification of casts, non-invasive casting for spinal management and more flexibility in clinics. Many years of trial-and-error has produced a highly accurate capture system, improving the clinical experience for clients and clinicians alike.

If you’ve ever considered working overseas, I’d encourage you to step out of your comfort zone and make the move. Working in the UK has been instrumental in my development as a clinician and experiencing life beyond Australia.
Mobility devices for all in Samoa

Motivation Australia’s work in partnership with local organisations in Samoa serves to highlight an effective approach for improving prosthetic and orthotic services.

Samoa and the mobility device service

Samoa is a Pacific Island Nation with a population of 196,444 (World Bank, 2017). Samoa has a strong traditional culture. People live by “Fa’a Samoa (the Samoan Way) – where family is all important, respect of elders is strictly adhered to, and being of service to your family is your duty” (Samoan Tourist Authority 2018). Samoan culture is very community oriented and the extended family is involved in most aspects of an individual’s life.

Health care in Samoa is provided by the National Health Service (NHS) and the main hospital (TTM) is based in the capital, Apia. There is a physiotherapy department at the hospital with two physiotherapists, There are no occupational therapists or inpatient rehabilitation accommodation.

Motivation Australia worked with the NHS and NOLA (Nuanua O Le Alofa - the disabled peoples organisation) to support the establishment of the Samoa Integrated Mobility Device Service (MDS) at TTM during 2014-2018. The service is the first the Pacific designed as an integrated mobility device service from the outset and provides wheelchairs, walking aids and prosthetic and orthotic devices. The MDS is managed by the NHS and staffed by trained Samoan personnel including one prosthetist/orthotist, one lower limb prosthetist and one lower limb orthotist. There are also two wheelchair clinicians and mobility device technicians.

The prosthetic and orthotic review

MDS prosthetic and orthotic services began in late 2016. In October 2017, Motivation Australia conducted a review of the prosthetic and orthotic aspects of the MDS. Overall, the review positively identified the facility contained appropriate tools, equipment and products; and personnel employed were appropriately trained.

Part of the review was also to identify the effectiveness of devices, from an individual perspective. We wanted to know if devices met the person’s expectations, provided adequate fit, function and an acceptable degree of mobility; and facilitated common activities of daily living. We met with twenty six people (from fifty one) who had been provided with a prosthesis or orthosis. In selecting people to talk with, covered a range of age groups, different devices provided, gender and locations.

Two thirds of people who received a device, and whose function could be reviewed, had achieved an acceptable degree of mobility. They were happy with how the device made things easier for them. For most who were not able to reach an acceptable degree of mobility, they were frail, deconditioned, needed further training or had other comorbidities affecting their function.

Stories from those who had been provided with a device were invaluable to consider the next steps for the MDS. For some of these stories, we travelled (by car and ferry) to Samoa’s second Island of Savai’i. Taulau was the first person we met in Savai’i.

Taulau’s story

Taulau is a 51 year old woman provided with a transfemoral prosthesis by the MDS in June 2017. Being able to access the prosthetic service to get her first prosthesis was a priority for Taulau and her family. She stayed with extended family members closer to the service when she first got the prosthesis and practiced using it. She talked of how her family’s other needs were overlooked to facilitate her to travel to the service. The financial difficulty this caused for her family has prevented her from being able to go back to the service for review visits.

Unfortunately since returning home, Taulau had not been using her prosthesis because she did not know how to put it on properly and was getting pain when she walked. When she first received the prosthesis, her daughter would help her put it on. However her daughter had recently moved away so there was no longer anyone at home who knew how to assist her.

When we met with Taulau we were able to provide her with some further education, enabling her to walk without pain. She had also been taught to use the prosthesis with the knee locked, but was keen to learn how to use the knee unlocked. After some quick
instruction it didn’t take long for Taulau to walk with the knee unlocked with crutches. She still needed more practice to be confident, however it was obvious with quick and specific training her function had already improved.

**Challenges for mobility device service provision**

Taulau’s story highlighted a number of key aspects for the service to consider moving forward. It was clear that follow up for Taulau was a challenge, particularly being so far away from the MDS. The cost and time for clients like Taulau and their extended family to attend the service on a regular basis was prohibitive. While the MDS has an accessible vehicle to support access to the service, it cannot reach the entire population. However when access to this vehicle was available it did make it easier for people to attend follow up appointments.

Similarly to Taulau, others indicated they were doing well during their gait training at the MDS, however started having problems after returning home. As may be expected in a culture such as Samoa’s, many relied on the assistance of their family members. This stressed the importance of family involvement throughout the rehabilitation process. For those who had problems with their device most did not contact the MDS. Instead, they stopped using the device or used it for less time.

It is common in Samoa for people to delay attending health services until it is absolutely necessary. There is also a strong sense of just getting on with life and this may also play a role in why people are not reaching out to the MDS for assistance.

In Samoa there are limited personnel who could support mobility device services and rehabilitation at the community level. To achieve equity, planning services at community level for follow up and training are important. This requires long term investment by the NHS and/or donors. Until this is possible, there is a need to consider other opportunities for ensuring people using mobility devices have sufficient support.

**Strength in family**

Samoa now has a service providing appropriate mobility devices, however the review highlighted the importance as well as the challenge of long term follow up to ensure successful outcomes for clients. These challenges are not unique to Samoa, and our partners in other Pacific Islands also experience barriers to follow up. We need to be more adaptive and creative to ensure that all people can access not only the device, but the continued follow up and review through their life.

We met a number of people during the review who have been able to return to the activities they need and want to do, which in most cases meant being able to support their family. Where services are not able to reach those living far away, the impact of family on outcomes of people needing mobility devices is so important. As allied health professionals we strive for client centred care. In Samoa, this must extend to “family centred care.” The reliance on and expectations of the extended family are arguably the most important aspect of life in Samoa. The opportunities of the strong family culture need to be harnessed, with extended family being actively involved in the entire rehabilitation process so they can support their family members to use their mobility devices effectively.

Motivation Australia is a not for profit disability and development organisation that works in partnership with local organisations to enhance the quality of life of people with mobility disabilities in the Asia Pacific region. The Samoa Integrated Mobility Device Service (MDS) project was supported by the Australian Government.
Endless possibilities ... building a career based on O&P

With O&P as a starting point, career development can take any number of directions. Jackie O’Connor reflects on some of her options and decisions made as she took some of the key steps in her career to date.

An early hunger for learning

My career began as many do, by moving interstate for a graduate position. I was determined my first job would have opportunities to learn a broad range of prosthetic and orthotic treatment options as I didn’t have a preference for either area and was hungry to learn more. I enjoyed this role and my interstate move but soon found my learning slowing and being limited to a certain area. Only 18 months in, I began to consider my options:

- Return to university to study another profession? Had I got my choice wrong?
- Try a different employer
- Try moving into something other than clinical practice – research perhaps?

I moved to a different O&P role and was provided with many opportunities to continue learning. I was mentored by a range of people, I consolidated my orthotic skills and was given an opportunity to educate others in the area and involvement in research was facilitated. I began to realise how different seemingly similar O&P roles could be and that already I had skills that could benefit others.

The value of mentors

My now lifelong mentor Sally Cavenett, also encouraged me to volunteer with AOPA at this time. AOPA opened my eyes to the world of healthcare beyond direct client to practitioner care and allowed me to work with leaders of the profession around the nation.

The results:

- expanded professional network, knowledge and skills
- a chance to taste different things in a low risk way; i.e. little change to my life and a simple get out clause if I didn’t like it
- identified my strengths and interests
- confidence to pursue chosen areas.

I was really consolidating and broadening my skills through the variety of exposure I was receiving.

Like many though, I wanted to travel. I used my O&P experience to work overseas and gained benefits I hadn’t thought about, such as:

- exposure to different ways of doing things – clinically, technically and systems wise
- a broader network of colleagues and mentors to draw on
- experience in the public and private sector.

All the differences and exposure gave me confidence and ideas.

Focusing and consolidating

Returning from overseas it was time to start focusing on my preferred areas to work and how I could best utilise the experience I had gained to date, for the benefit of others and to make my work as enjoyable as possible. I decided to focus on prosthetics and worked privately for some time. My volunteering with AOPA recommenced and I chaired the inaugural AOPA congress. Again, this role gave me wider experience than I’d previously had; budgets and reporting, co-ordinating others, increased exposure to the supplier side of the profession.

My desire to keep learning and improve the lives of as many people as possible was itching at me to consider what was next, so I again considered my options:

- Work with suppliers
- Find ways to be involved with technical innovation
- Education roles
- Research roles
- Management roles.

I chose to move to a public facility where my role still entailed lots of time to treat but again enabled research participation and new learning in the area of budget management with the view of perhaps one day moving into O&P department management.
Furthering education and responsibility

To me progressing to management was a way of being able to effect change for all, colleagues and clients. It’s funny to me that we all study something like O&P for so long but then think we can just be a role as important as a manager. So, I chose to further my education and enrolled in a Master of Health Service Management that focused on service evaluation and planning.

My opportunity to tackle the role of manager came much faster than expected, not long after beginning my studies. However, I continued in the study as I could see how it benefited my development in the role. Management helped me:

- Build more general business skills
- Work on inter-personal skills
- Understand an organisation in its broader sense and context both internally and externally
- Opened my eyes further to the enormous challenges of sustainable, effective and efficient healthcare.

My study was progressing slowly, yet my drive to positively influence things on a larger scale remained unfulfilled in this role, once again it was option considering time!

- Upper management – Allied Health Manager and hopefully beyond
- Administration - insurance schemes, government funding bodies, hospitals
- Advocacy, Policy development, Accrediting bodies, Associations
- Research

Affecting change on a larger scale

It was my love of the O&P profession and the drive to make it what it needs to be for clients that motivated me to take a role with AOPA.

As Project Officer and Manager of Advocacy and Policy with AOPA my learning continued and my experience was applied in a different manner to the past. Whilst in this role I gained a greater appreciation of what the policy makers were trying to achieve with their policies than I’d had as a practitioner and manager. As a result, I became passionate about trying to bridge the gap between policy makers and practitioners to ensure policy implementation achieves its intention.

Enabling choice and fulfilment

A baby arrival and chronic disease diagnosis collided, delivering me with the toughest time of my life, mentally, physically and personally. A situation like this makes you analyse your options no matter how many times you have done it before! The experience drove me to complete my Masters in the research stream and look at person centred care experiences among Diabetes Educator services.

Personally, it meant I wanted to create a flexible life for myself so that my need to manage my health didn’t impact my employment or family. At this point I broadly considered two options that I thought would fulfil all the personal and work drivers, dreams and preferences I had:

- Project and consultancy work
- Own clinical practice

As a result, I recently founded Allied Health Specialist Consultants (AHSC), a company determined to assist consumers to benefit from efficient and effective health services. This is purposely broad to ensure it continues to fulfil that lifelong learning bug I have.

I’m so pleased to be a part of the niche community that is Orthotists/Prosthetists. However, I now know that by using an O&P degree as a basis for lifelong skill building, working to your strengths and preferences, valuing mentors and exploring new paths, there are endless possibilities for where this degree can take you. I truly believe the health system and its clients will be better for the expansion of our profession into many different areas.
WHAT'S YOUR NEXT CAREER MOVE?

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Stepping out into practice

Having your own business is challenging and rewarding at the same time. It’s not for everyone but make sure you don’t let the unknown stop you from having a go.

There are so many considerations to starting your own practice. Can I afford to go without income for a while? Could I earn more working for myself? The flexibility would be amazing but would there actually be flexibility? Would I get a holiday? What happens if it doesn’t work out? Where do I start?

The beginning of an idea

After graduating in 2004, I gained experience in public hospitals, spanning from neuromuscular outpatients, complex orthotic inpatients and trauma. I developed a particular interest in fracture management including upper and lower limb casting and custom low temperature orthotics.

After 4 years in the public system, I made a big change to work in a private clinic. It was here, working directly with foot and ankle Orthopaedic Surgeons that my passion for musculoskeletal foot and ankle management began. At this point I began to think about my career future and what I wanted it to look like.

Motivated by passion and autonomy

The question kept arising, did I want to work for someone else for the rest of my working life? Finance was certainly a motivating factor, realising that my earning capacity whilst working for someone else was limited.

I was confident to consider this step also having worked across the health system, I had identified my clinical passion – foot and ankle and fracture management. I also had an exact vision of how I wanted to run things, whether or not I could achieve it was another question!

Bringing the idea to life

I really had no idea where to start. I was an Orthotist, not a business guru. I started seeking input from experts in strategy, business and accounting. I developed my business model, creating a spreadsheet of all expenses (set-up costs, fixed costs, variable costs) and revenue. I forecast that I would see no patients in the first three months – not ideal, but realistic.

I knew which hospitals I wanted to be located close to. After signing a lease, we built walls and workbenches, painted and purchased the essentials like an industrial kitchen sink and bench for cast mods, along with a reception desk, chairs, tables and computers, all the while freaking out that I had no one to refer to me!

Unable to take existing referrers with me into the new business, I needed to build my referral base. I had to start somewhere, so I assembled a welcome pack with referral pads, business cards, a letter highlighting my clinical experience and sent them to all the surgeons, GP’s and allied health professionals in the area.

Support staff was not something I considered in the early days. I was the receptionist, the practice manager, the marketing team, the technician and the orthotist.

Worlds apart in perception and reality

In 2012, I opened my doors to no patients or phone calls. It wasn’t uncommon to spend whole days on business building activities such as sourcing referrers, finishing my website and social media pages.

The first 12 months weren’t very glamorous and there were many days that I questioned if I’d made the right decision. Cleaning the clinic on Saturdays really brought home that the perception and reality of running your own business can be worlds apart!

Changing challenges

The challenges evolve as time goes on. Initially it was difficult finding referrers that would meet me. Being nice to their admin staff is essential – they are the gate keepers. The bottom line is, if you assist their patients they will send more. Another challenge is knowing when to employ staff. Sometimes you don’t know if it will add value until you try, but as usual just do the numbers and take a leap.

A current challenge is ensuring the business continues to thrive even when I’m not around and this will dictate the future for Orthotics Plus.

Reflecting on success

When I first created my business plan, I had goals for the following 5 years, all of which I have exceeded. Six years on, I’m proud of what I have created. I still stress all the time, when I’m busy and when I’m not busy. Hopefully one day I’ll strike a balance!

If you’re considering starting your own business, I suggest pursuing practice in the area of your clinical passion! Also, doing the adequate planning and leverage the knowledge of others to assist in business set up. Finally, find the right location, find a gap in the market and fill it.

Kate Perlstein / Senior Orthotist/Director, Orthotics Plus / admin@orthoticsplus.com.au
Empowered by Sport

The 2018 Invictus Games highlighted the important role that sport plays in the process of healing and rehabilitation.

In October this year, the Invictus Games saw over 500 participants from 18 nations compete across diverse sports such as athletics, swimming, cycling, sitting volleyball, wheelchair basketball, rugby and tennis. Sydney served as the backdrop for an impressive display of the physical abilities and competitive spirit of injured service men and women.

Beyond the sporting prowess of the participants, the event also challenged perceptions and sent a clear message about life beyond disability. The success of the event served as a reminder that sport has an important role to play in healing and rehabilitation.

For many orthotist/prosthetists who are involved in assisting athletes with a disability, the healing power of sport should come as no surprise. The profession is acutely aware of the important collaborative role it plays in assisting athletes from all walks of life to achieve their sporting goals.

For this reason, AOPA teamed up with the Start Foundation to add it’s voice in support of the Invictus Games and injured service men and women. Stories highlighting the collaboration between orthotist/prosthetists and disabled athletes were shared online and on social media, with the hashtag #empoweredbysport used to promote the topic to members and users of the profession, as well as the general public, receiving widespread interest and engagement.

Search #empoweredbysport to see some of the commentary surrounding the event. Visit www.aopa.org.au/publications/resources/empowered-by-sport for information about activity specific prostheses. If you're interested in fundraising for amputees wishing to participate in sport, visit www.startfoundation.org.au
CPD audit strengthens O&P certification

AOPA recently completed the first audit, with 21 practitioners selected randomly to provide evidence of CPD activities.

In 2017 AOPA launched the annual CPD Audit as part of our practitioner certification process. This means that a yearly verification of CPD Activities from a random sample of AOPA Certified practitioners would be checked as part of a random audit. This verification process strengthens the AOPA O&P certification, ensuring the CPD requirement is a robust component of re-certification.

The first CPD audit was conducted as part of the 2018/19 certification renewals, with the audit verifying the CPD activities for the 2017/18 CPD requirements.

What happened?

The CPD audit process began once the renewal period was finalised and certified practitioners had updated their CPD Tracker and completed the online renewal. A random sample of 5% of certified practitioners was selected for the audit, which totalled 21 practitioners. These certified practitioners were sent a letter advising of their selection for audit and requesting the submission of evidence for their reported CPD activities in line with the CPD Compliance Audit Evidence Guidelines.

All submitted CPD evidence was presented to the AOPA Re-certification Committee. This is a Board Committee with responsibility for practitioner re-certification processes, such as Leave of Absence applications, CPD Special Consideration applications, and CPD Compliance Audit. The Re-certification Committee assessed the submitted evidence against the Evidence Guidelines.

What was the outcome?

Of the 21 audited CPD records there were 14 assessed as complete and immediately passed the audit. Seven were required to provide additional evidence or to clarify the submitted evidence. These practitioners received a letter outlining their selection for audit and requesting the submission of evidence for their reported CPD activities in line with the CPD Compliance Audit Evidence Guidelines.

What did we learn?

The first audit provided an opportunity for the Re-certification Committee to reflect on the audit process and consider where there are opportunities for improvement or to further support practitioners with their CPD requirements. A number of practitioners who obtained all their CPD activity through accredited activities. This streamlined the audit process as their attendance at the education events was already verified. In future however the AOPA CPD program will likely have a maximum limit placed on Accredited Activities, such that CPD is undertaken from a variety of sources. This will bring AOPA's CPD program in line with that of other allied health in Australia.

We also learnt that AOPA certified practitioners complete a diverse range of CPD activities, with a large proportion of audited records including in-house education from component suppliers and in-house education, such as journal clubs and in-services. It was difficult for the audited practitioners to provide appropriate evidence of attendance at these education activities and therefore it may be valuable for employers and education providers to provide annual certificates of attendance.

What are the next steps?

The office team will work with the Re-certification Committee to review the process that was undertaken this year and consider where improvements and streamlining can occur. We will also look for opportunities to increase the types of evidence that we accept and improve the examples provided in the Audit Guidelines.

How can you be prepared for CPD Audit?

When recording your CPD in the online CPD Tracker in the Member Centre of the AOPA Website, there is now an option to “Nominate Evidence” with every entry. This is not compulsory, however in the case of being selected for Audit, any evidence not provided in the CPD tracker will be requested by the Re-certification Committee. If you however are selected for audit, and all of your evidence has already been uploaded, no action will be required from you.

We encourage you to load your certificates of attendance immediately or any other relevant evidence to ensure your CPD record is always up to date. All members must maintain an ongoing CPD portfolio and keep these records for five (5) years. Therefore, uploading your evidence immediately is an easy way to ensure you are compliant for this year, but also the previous 5 years.

Visit www.aopa.org.au/member-education/cpd-overview for further information on the CPD audit, including a complete overview as well as guidelines for evidence.
Congress 2019

The AOPA Congress Committee is excited to announce details for next year’s event.

Plans are already underway for #AOPA19, which will once again return to Melbourne on the 24th – 26th of October.

Congress Convenor Jess Grant returns to deliver Australia’s premier O&P event, which will be held at the purpose built Crown Conference Centre. Featuring the successful three day program format including a full day of workshops, as well as our popular technician and student education events, there’s also an exiting exclusive new venue for the congress dinner!

Keep an eye on your inbox as more details are released early next year.

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Uncover best practice approaches to clinical conundrums

Keeping up to date with best practice in busy clinical environments can be challenging. If you’re looking for a way to ensure your clients’ orthotic/prosthetic management aligns with best practice, our new forum might be a step in the right direction.

All health care services should be underpinned by EBP

Recent times have seen dramatic changes in how health care services are delivered. There is now explicit recognition that health care should be underpinned by quality principles (safe, effective, efficient, timeliness, patient centred and equitable) and, in order to keep up with current best practice, routine evaluation of health care practices should be undertaken.

Evidence-based practice (EBP) calls for health care to be underpinned by research evidence, clinical expertise, patient values and information from practice contexts. It is expected that all health professionals will be informed consumers of research evidence. As orthotist/prosthetists are tertiary qualified allied health professionals who interact regularly with members of the multidisciplinary healthcare team, they too are required to ensure their practice is underpinned by EBP.

While there is wide recognition for the importance for, and the value of, EBP in health care, implementing EBP in health care is confronted by a range of barriers. These include lack of knowledge and skills in EBP, restricted access to research evidence, limited time and resources in synthesising research evidence, competing clinical demands etc. While some of these barriers are complex and require substantial investment (such as addressing clinical demands), others can be addressed through innovative and collaborative solutions.

Introducing the ‘Best Practice Forum’

This year’s AOPA Congress saw the launch of the ‘Best Practice Forum’, a new initiative in collaboration with the University of South Australia School of Health Sciences with the support of Dr Saravana Kumar. Dr Kumar ran two best practice forums at the Congress to introduce the new initiative to members.

A logical, seven step process

The AOPA Best Practice Forum is underpinned by seven key steps:

STEP ONE: Identify a clinical issue – AOPA and its members will identify a clinical issue that requires exploration of current research evidence, has relevance to clinicians and could benefit from analysis

STEP TWO: Convert the clinical issue into an answerable question – The research team at UniSA, using well-established frameworks (such as PICO, PECTO etc), will convert the clinical issue into an answerable question

STEP THREE: Search the literature to identify relevant studies – The research team at UniSA will search relevant literature, through databases and grey literature sources and purposively select relevant research studies to answer the question

STEP FOUR: Select three research studies to answer the clinical issue – Upon identification of research studies, the UniSA research team will forward the title and abstract of these research studies to AOPA and its members to select up to three research studies which will form part of the discussion

STEP FIVE: Critically appraise and summarise the research studies – Once research studies have been selected, the UniSA research team will undertake critical appraisal and summarise the research studies, using established processes, and forward it to AOPA in a standardised format. Included in this summary will be a brief synthesis of evidence identified from the three research studies

STEP SIX: Disseminate the critical appraisal and summary of research studies – A few days prior to conducting the virtual best practice forum, critical appraisal and summary of the research studies will be disseminated to AOPA members who have nominated to participate in the forum. This critical appraisal and summary document may be used by AOPA to create a virtual library of critically appraised and summarised research studies for future and ongoing access by members

STEP SEVEN: Conduct a “virtual” best practice forum – UniSA researchers in partnership AOPA will conduct a “virtual” best practice forum, during which the selected research articles will be presented, and methodological strengths and weaknesses discussed. Particular focus will be placed on implication for clinical practice (the “so what”) and discussions will be facilitated in terms of clinical applicability, feasibility and relevance. This facilitation will occur jointly between UniSA researchers (content experts) and AOPA members (context experts) to ensure there is acknowledgement of research evidence as well as clinical expertise. The session will conclude with key take home messages.

The AOPA Best Practice Forum will run biannually as part of our National Education Calendar. Keep an eye on the education calendar at aopa.org.au/education for dates and further details.

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Taking the next step: The Literature

In our final edition for the year, O&P specialist and librarian Geoff Hill has matched our feature topic to the literature as a way of providing a research based context to frame the discussion.


Key article summary

When taking the next step into the unknown, user-centred design methods offer a framework for ensuring patients’ needs are an integral part of the process. In the case of redesigning and improving a foam cosmesis for transfemoral amputees, users’ needs were emphasised during the following stages:

1. Creation of product specification
2. Concept generation and development
3. Detail design and prototyping
4. Testing and validation
5. Product refinement

The process highlighted key areas of improvement required by users, including minimising damage to the cosmesis, comparable rigidity and feel to the human leg, comparable or reduced cost, fitting time and manufacturing time.

The resulting design featured improved durability, ease of donning and a more lifelike appearance, while cost and fitting were slightly higher.

Further reading


Opportunities for private providers to access clinical evidence

Practitioners in private practice may feel they are disadvantaged by not having the same access to subscription services as colleagues in public health. However there are a number of ways to access clinical evidence that are freely available.

- PubMed (https://www.ncbi.nlm.nih.gov/pubmed/) is a massive free database of health literature maintained by the US National Library of Medicine. Many, but not all, records have a full text link.
- Read by QxMD is a free mobile app which allows searching and browsing of healthcare journals. (Android and iOS available).

Both of these tools allow users to set up notifications for newly published material, either by key-word or by selected journal. If you identify an article but find that access requires a subscription, there are a number of options:

- Google Scholar. (https://scholar.google.com.au/) Copy and paste the title into Google Scholar. Many journal articles will have also have a free version archived on personal or institutional websites. Scholar will usually find these.
- UnPaywall is an extension for the Chrome and Firefox browsers. When visiting a journal page it searches for a freely available version.
- Contact the author directly. Authors generally have some personal distribution rights.
- Buy the article. Publishers are only too happy to sell access. Individual articles generally cost $30-50. Extortionate? Yes, but tax deductible, and what price for good practice?
- Wait. Many articles become freely available after an embargo period. Unfortunately there is no easy way of knowing if and when this is likely to happen for the article you want. Around half of all biomedical literature is now open access, and it is increasing each year, so don’t be put off by your private status. The methods described here can keep any motivated clinician up to date with current evidence. 😊
Connect with us and join the conversation!

There are so many ways to connect with AOPA and the O&P profession, whether you’re an AOPA member, an allied health practitioner, a product supplier, a user of orthotic/prosthetic services or simply someone who is interested in our profession. Share your experiences, seek advice from your colleagues, discuss new ideas and explore everything AOPA has to offer. Find us on social media and join the online orthotic/prosthetic conversation!

LinkedIn
- linkedin.com/company/australian-orthotic-prosthetic-association
- member-only group: linkedin.com/groups/6950694

Create your LinkedIn profile and share your work experiences, skill sets and interests with other like-minded professionals.

Follow AOPA’s public company page for important official news and announcements, and join AOPA’s member only group to stay connected to the profession, association and your colleagues.

Twitter
- twitter.com/aopa_news

Sign up to Twitter and follow @AOPA_News for regular tweets on all things #OandP.

Help represent your profession and increase engagement and interaction with other professional associations, related organisations and government bodies to extend the power and reach of our messages.

Facebook
- www.facebook.com/AOPAnews

Like the Australian Orthotic Prosthetic Association Facebook page to promote the profession and share the vital work of orthotist/prosthetists amongst the community.

AOPA will continue to post a range of promotional topics, including more Clinical Specialty Resources, throughout 2019. Be sure to share these on Facebook to increase the profile of O&P in Australia.

Strengthen your brand with AOPA Advertising & Partnership Opportunities

Deliver targeted messages direct to the orthotic/prosthetic community and demonstrate your ongoing support of the profession. Advertising and partnership allow AOPA to deliver valuable services to our members, ensuring excellence in standards of practice, strengthening the O&P profile and reducing barriers to growth of the profession.

Place an advert in the Review
Reach over 500 orthotist/prosthetists, education subscribers and related industry partners.

Promote your educational events
AOPA strongly supports the delivery of high-quality CPD activities to our members.

Fill your employment vacancies
Advertise on our Employment Opportunities page, the most frequently accessed area of the AOPA website.

Partner with us
Join AOPA as a Corporate Partner and receive a range of benefits and discounts. Your support allows AOPA to progress significant projects for the profession.

Want to know more?
Head to our website and download the AOPA Advertising Prospectus and the Corporate Partnership Program at aopa.org.au/about-us/connect-with-aopa or email admin@aopa.org.au
The New Genium and Genium X3
Reclaim all you want to be.

What’s New?
OPG 2.0 – Greater safety and efficiency with every step
New units are now compatible with iOS and Android devices
More flexible MyModes to tailor settings to your individual needs

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