



Greener AHP Case Study Report

The Royal Wolverhampton NHS Trust

Greening Orthotics – Winner of the Chief Allied Health Professions Officer Greener AHP Award 2022

Partner Organisations – The Royal Wolverhampton NHS Trust’s orthotics department based at New Cross Hospital and Cannock Chase Hospital as well as Beagle Orthopaedics, the main supplier to the orthotics service

Topic area/Greener NHS workstream: (Please identify)

Adaptation <input type="checkbox"/>	Communications and engagement <input type="checkbox"/>	Estates and facilities <input type="checkbox"/>	Food, catering and nutrition <input type="checkbox"/>
Funding and financial mechanisms <input type="checkbox"/>	Medicines <input type="checkbox"/>	Research, innovation and offsetting <input type="checkbox"/>	Strategic ambition <input type="checkbox"/>
Supply chain <input checked="" type="checkbox"/>	Sustainable models of care <input checked="" type="checkbox"/>	Travel and transport <input checked="" type="checkbox"/>	Workforce, networks and system leadership <input type="checkbox"/>
Other (please specify):			

For more information about the themes, see [Delivering a ‘Net Zero’ National Health Service](#) report (pp.64-74)

Key message/aim:

With COVID in the backdrop catalysing the need to look at service delivery, the orthotics service at the Royal Wolverhampton NHS Trust considered new ways of working. The team agreed to be the pilot service for the Trust ‘to go green’. Together they investigated how to improve the environmental sustainability of the service without negatively impacting quality, patient care, and efficiency. In April 2021, the “greener orthotics” panel was created to discuss ideas and formulate a plan, examining how to reduce waste, improve processes, and recycle and to see if there were ways patients could access the service differently.

What was the problem?

The small group met monthly to consider various service improvements through a sustainability lens. Orthotics is a product heavy service. One of the main problems tackled by the panel was around packaging, frequency, and mode of deliveries by their main supplier. Another issue explored by the group was the implementation of telehealth. The COVID-19 pandemic resulted in a shift to remote

consultations, but telehealth consultation guidelines for Allied Health Professional (AHP) groups were lacking or inconsistent. Elements of the service that involved paper-based outputs were reimaged. A re-use option was found for Ankle Foot Orthoses (AFOs), which are normally disposed of. Recycling more generally was addressed by the installation of recycling bins in the department.

What was the solution?

The panel comprised: Beagle Orthopaedics, the main supplier to the orthotics service, Janet Smith (Head of Sustainability at The Royal Wolverhampton NHS Trust), Dr Nicky Eddison (Orthotics Service Manager and now the Trust's AHP Research Lead), Kate Pugh (Orthotics Clerk now a Project Support Administrator at the British Association of Prosthetists and Orthotists), and Ndanatsei Mupawaenda (Orthotics Clerk). Meetings were held monthly and led to the following solutions to some of the problems identified:

- Reduction of single-use plastics and packaging
- The introduction of biodegradable bags
- A reduction in deliveries and the introduction of once-a-week delivery service
- The introduction of a large reusable box instead of cardboard boxes for collections and deliveries
- The switch from diesel lorries to an electric vehicle for collections and deliveries from their main supplier
- The implementation of telehealth. Dr Eddison was involved in research exploring the implementation of telehealth in the Allied Health Professions (AHP). The research team has since worked with the Allied Health Professional bodies to develop telehealth guidelines specific to professional groups (see resources section below for further information).
- The introduction of recycled paper, which was only used when necessary, and the implementation of a service that printed and posted all letters externally on recycled paper. This was not only cost-effective but also gave the administrators more time to do other duties.
- Triaging which was paper-based was changed to an electronic system along with electronic ward logs and goods posted out log
- AFOs were sent to developing countries to be used instead of disposed of
- Recycling bins were installed in the department

What were the challenges?

The main challenge was engaging the wider orthotics team. There was a reluctance to engage due to the belief that a small service is unlikely to have any meaningful impact on the NHS green targets. There were also logistical challenges due to the service being split across two sites.

The introduction of telehealth was challenging at first. There was a belief that a virtual appointment is not as effective as a face-face appointment. We had to reassure the patients that we have carefully selected which appointments are appropriate for telehealth consultations and also make sure they understood that they could choose to have a face-face appointment if they were not satisfied with the outcome of their telehealth appointment. The clinicians also struggled to adapt to a virtual way of working in the beginning. There was a fear of making a mistake and there were issues with digital literacy for some staff.

What were the results/impact?

- Travel- 151,913 miles of patient travel to and from the hospital. The equivalent of 6 times around the globe!
- Parking- a reduction of 5,621 car parking spaces
- Co2- a reduction of 28 tonnes CO2emissions in the local area
- Forest- It would take 14.7 hectares of forest a year to save 28 tonnes of CO2
- Quality adjusted life years saved- 0.1 QUALY

The team's efforts won them the Chief Allied Health Professions Officer's (CAHPO) Greener AHP Award in October 2022. The department also won the Fab Change award for 2021 for sustainability. They have written articles for British Association of Prosthetists and Orthotists (BAPO) and Institute of Health and Social Care Management (IHSCM). They presented at the Trust's sustainability session and have a presentation planned for BAPO as well.

What were the learning points?

The key enablers were developing a great relationship with our main supplier and having a shared sense of purpose. Ensuring the project was led by the people who understood the service, that being the staff who worked in the service. It was important to be fully inclusive and ensure every member of staff felt they could contribute to the project. This led to members of the administrative staff stepping forward and leading the project. It was great to see staff at the heart of the service leading change.

It was also important to have the support of the Trust's sustainability lead who supported us to become the pilot service for the Trust's green project.

Re-imagining the service was the key to its success. It was important to start from a blank canvas and ask ourselves why we deliver the service in its current format. This is really important because historical practice rarely gets scrutinised and becomes the norm. When our team re-imagined the service, we found lots of unnecessary steps in our processes. The single most important piece of advice would be to review every aspect of your processes through a completely different lens. The things you have never questioned start to look very different.

Next steps

There are several other pieces of work on the horizon including:

- New sustainable flooring throughout the department
- A new heating system with individual heating controls per room
- Re-design of the structure of department to ensure all space is effectively utilised and can accommodate all groups of patients (e.g., our bariatric patients, patients in wheelchairs who require casting)
- Switch to LED lighting



The Orthotics team with their Fab Change award (note some members of the team are missing from this photo)

Kate Pugh and Ndanatsei Mupawaenda
with the CAHPO award

What the team and/or patients and carers had to say:

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As an Orthotic Clerk to be given the opportunity to be part of an award-winning project felt very empowering and fulfilling. To be given the chance to see an idea come to life, present it, and be supported to make changes that benefit both the department and meet the greener NHS objectives helped improve team working within the department and open a new platform for the team to be able to present ideas and be more open about changes they felt would improve efficiency. To see and hear one's voice being listened to really was and still is life-changing both at work and in home life as now it is a little easier to step out of our comfort zones. (Kate Pugh and Ndanatsei Mupawaenda)

Resources and references

- 1) Eddison N, Leone E, Healy A, Royse C and Chockalingam N. 2022. The potential impact of allied health professional telehealth consultations on health inequities and the burden of treatment. *Int J Equity Health* **21**, 91 (2022). <https://doi.org/10.1186/s12939-022-01689-2>
- 2) Leone, E., Eddison, N., Healy, A. *et al.* Do UK Allied Health Professionals (AHPs) have sufficient guidelines and training to provide telehealth patient consultations? *Hum Resour Health* **20**, 82 (2022). <https://doi.org/10.1186/s12960-022-00778-1>
- 3) Eddison N. Royse C. Healy A. Leone E. and Chockalingam N. Telehealth provision across allied health professions (AHP): An investigation of reimbursement considerations for its successful implementation in England. *Heal Sci Reports*. 2022; Rep, 6: e9:10-2.
- 4) Eddison, Healy, Calvert, Chockalingam. The emergence of telehealth in orthotic services across the United Kingdom. *Assist Technol*. October 2021:1-6.
- 5) Eddison N and Leslie. R. How are AHPs embracing the green agenda and sustainability? *Inst of Heal Soc Care Manag*. 2022.
- 6) Pugh K and Mupawaenda N. Orthotics: national award winners for sustainability. The Institute of health and social care management. December 2022 <https://ihm.org.uk/2022/12/01/orthotics-national-award-winners-for-sustainability/>
- 7) Leone E, Healy A, Eddison N, Royse C, and Chockalingam N. *Framework to guide Allied Health*

Want to know more?

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Location & NHS Region: West Midlands

External partners involved: Beagle Orthopaedics

Has this case study or story been made public in any form before? Yes, via aforementioned publications and presentations