The COVID-19 response of the orthotic diabetes service in NHS Lanarkshire

Claire McMahon

Citation: McMahon C (2022) The COVID-19 response of the Orthotic Diabetes Service in NHS Lanarkshire. *The Diabetic Foot Journal* 25(4): 8–11

Key words

- COVID 19
- Diabetes Foot Service
- Diabetes Podiatry
- Orthotics

Article points

1. The response by the orthotic diabetes service due to the reduced service and challenges that COVID-19 spurred.
2. Changes in practice and new orthoses used due to an urgent need within the constraints of the pandemic.
3) Guidance released from International Working Group on the Diabetic Foot, FDUK and British Association of Prosthetists and Orthotists was used to support clinicians during the pandemic.
4) There were new technologies used during COVID-19, which now form part of current practice and extended clinician roles have been developed.

Authors

Claire McMahon is Diabetes Specialist Orthotist, NHS Lanarkshire, Scotland

As a direct consequence of the COVID-19 pandemic, the orthotic outpatient service in NHS Lanarkshire, Scotland, was suspended on March 20, 2020. There was an urgent need to keep high risk patients safe and only attend acute sites if they needed urgent treatment. New practices had to be developed to manage patients safely while reducing infection risk and provide the best treatment possible within the constraints of the pandemic. The service had to adapt and change our prescriptive practice maintaining our clinical reasoning and practicing safe practice. There was also the move to new technologies to assess patients with virtual technology, such as video consultations and the orthotic service developed a formal approach to triaging if an urgent face to face appointment was required. These now form part of our current practice. Due to an urgent need, clinical practice has improved and developed, which can only improve the service provided clinicians that benefits our patients.

On March 20, 2020, the orthotic outpatient service in NHS Lanarkshire, Scotland, was suspended. In these unprecedented times, there was a steep learning curve as new practices had to be developed to manage patients safely, while reducing infection risk and provide the best treatment possible within the constraints of the pandemic.

Due to the pandemic, it had been discussed at multidisciplinary meetings because of the uncertainty of COVID-19 there was a need to keep high-risk patients safe and to only attend acute sites if they required urgent treatment and to reduce footfall in the acute sites. The diabetes podiatry and orthotic services continued on a reduced capacity for urgent cases where patients were risk stratified for their treatment needs where only most urgent cases were being seen.

Early in the pandemic, vulnerable groups were advised to shield. Older people and those with significant comorbidities were seen to be at risk of poorer outcomes of COVID-19 infection. Patients were also understandably reluctant to attend hospital due to the unknown infection risk.

In NHS Lanarkshire, due to the uncertainty of staff absences from shielding, COVID-19 infection and self isolation, the two diabetes orthotists were initially redeployed to assist the diabetes podiatry service in the event of staff absences. Allied health professionals at that time were also being redeployed to high pressure areas and wards.

The redeployed orthotist's role was to assist the diabetes podiatrists in the treatment of inpatients and supporting podiatry outpatient clinics in a podiatry assistant role. These tasks also included triaging phone calls from patients and community podiatrists to assess patient priority with risk stratification to decide if face to face or 'Near Me' appointments were required. Near Me is a web-based platform that offers video call access for patients to NHS services and runs on the Attend Anywhere platform.

As a multidisciplinary team, we had to adapt our previous practice to accommodate a reduced service whilst maintaining safe practice. Two of the orthotists were also trained in phlebotomy to cover phlebotomy staff shortages at the diabetes podiatry department and on the wards with inpatients. This included formal face to face training and supervised practice with the phlebotomy nursing staff. At the start of the pandemic, new guidance was released from the International Working Group of the Diabetic Foot (IWGDF) to try to keep patients with diabetic foot disease-free from hospital, which involved collaborating abilities and expertise to provide the best care possible for patients with diabetic foot disease (IWGDF, 2019).

On March 23, 2020 guidance was released from Foot in Diabetes UK (FDUK). These were provided to support clinicians during the COVID-19 pandemic in line with current practice. The guidance was to assist the identification of and management of people with critical/limb-threatening ischaemia or infection (FDUK, 2020).

As outpatient clinics were suspended at the start of the pandemic, we had to prioritise the high-risk patients from the cancelled clinic lists. These patients were monitored and reviewed remotely. Patients were advised on self- management to monitor their feet if there was any new ulceration/rubbing from their footwear/insoles, increased swelling, temperature increases, change in foot shape or pain and advised to contact the department as required. These patients were then triaged if an urgent face-to-face appointment was required.

There was the uncertainty and risk concerns regarding patients in total contact casts for Charcot neuroarthropathy and offloading wound management. The aerosol effect from using cast saws was deemed to be an increased infection risk. There was also the requirement to reduce foot fall on the acute sites. These patients that were in casts were transferred to knee high removable walkers. They were advised on self-management and if possible to purchase infrared thermometers to check their temperature differences at home. This was reviewed virtually via telephone consultations. They were also given advice on self-monitoring if there were any changes of shape or swelling in the foot and ankle.

Orthotic manufacturing facilities closed and ceased all production at this time which meant that we could not manufacture anything custom made/bespoke. We had to adapt and change our prescriptive practice whilst maintaining our clinical reasoning and safe practice. We started using alternative stock orthoses. In particular, we started prescribing the VACOcast Diabetic Boot (OPED) knee-high removable walker for the treatment of Charcot neuroarthropathy where our previous practice was using the Aircast XP Diabetic Walker (DJO Global) with a custom total contact insole. This was due to the bead technology of the VACOcast Diabetic, which conforms to the plantar aspect of the foot and ankle while still applying the principles of load sharing/immobilisation, which is evidence-based for clinical effectiveness. The VACOcast Diabetic was also used for plantar ulceration in place of our previous practice, which was a load redistribution cast or knee-high removable walker with a total contact insole.

There was the uncertainty if the orthotic suppliers would cease operations and no longer supply stock items and if the UK distributors would not be able to obtain stock items from abroad. To try and pre-empt this, 3 months'-worth of stock items were ordered to ensure there was stock available if required. These stock items were supplied to the diabetes podiatry clinics on the three acute sites in NHS Lanarkshire. This was for the prevention of cross-site infection, as cross-site working was not recommended to avoid cross infection in different staff teams, which also had the added difficulty of where the two diabetes orthotists who previously covered the three acute sites, there was then one acute site that did not have a diabetes orthotist attending.

The stock items ordered included knee-high diabetic removable walkers (Aircast XP Diabetic Walker) for charcot neuroarthropathy and offloading, PRAFOs (Anatomical Concepts) and Soft Pro boots (Ossur) for heel relief. Darco All Purpose and MedSurg shoes (both Algeos; which are flat and rockered shoes), hindfoot relief and forefoot relief shoes, peg assist insoles for Darco shoes for deflective treatment and Diabetic Interpod insoles (Algeos) for shock absorbency and cushioning.

Items were posted to patients as there was no outpatient clinics, such as temporary footwear for swelling/dressings and stock diabetic insoles

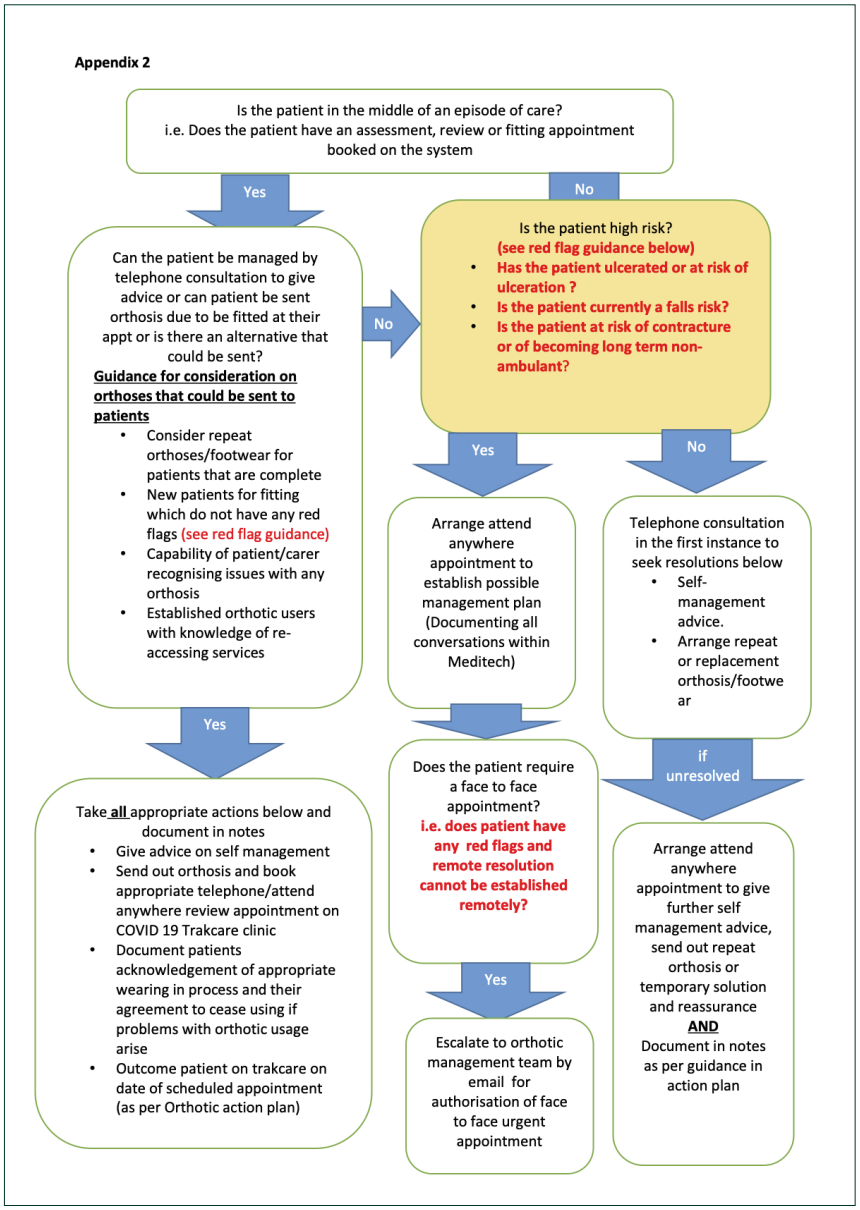

Figure 1. Clinical triage process for current orthotic patient caseload during COVID-19.

to provide cushioning/shock absorbency. These was reviewed remotely by telephone and Near Me video consultations.

Virtual technology was used for multidisciplinary Microsoft Teams meetings, which were previously face-to-face meetings to discuss patient cases/treatment plans, keep up-to-date and also importantly, peer support. Initially, due to not being able to work cross site and social distancing, we held daily Microsoft Teams meetings to check in with each other and any updates/concerns as we were unable to meet face to face.

In April 2020, the orthotic service in NHS Lanarkshire developed a clinical triage process for our current orthotic caseload. This was a more formal approach to triaging and virtual consultations.

This paper gave guidance on the clinical triage and prioritisation of existing patients to promote self-management during a time when out-patient clinics have ceased due to COVID-19. It was important that the orthotic service delivered a person-centred and structured approach to help patients where physically possible.

The temporary cessation of the out-patient services required the orthotic service to take a pragmatic approach in light of patients who cannot attend clinics but still require orthotic intervention. An approach needed to be adopted to allow patients to stay safe while in self-isolation and mitigate any potential risks (e.g. falls or ulceration) due to their current orthotic needs (*Figure 1*).

On April 9, 2020, the British Association of Prosthetists and Orthotists (BAPO) published guidelines for Virtual Patient Assessment. These guidelines were created to allow orthotists to proactively still treat non-urgent patients without the need for face-to-face consultations in a standard orthotic clinic. These guidelines created some standardisation of operational procedures during the pandemic to allow orthotists to provide simple, safe interventions to patients virtually (BAPO, 2020).

This included telephone assessments/review and Near Me appointments where we could assess any changes in deformity/pain and any new pressure areas/ulceration to then plan how to manage these patients effectively.

Following the current caseload being managed, new referrals were triaged to the risk pathway and managed remotely where possible and triaged to a waiting list to be seen when out patients resumed based on priority. When it was possible to start seeing patients in a home setting but outpatient services had not resumed, we started domiciliary visits with the required personal protective equipment (PPE).

We found there was an initial reduction in the numbers of patients presenting during the first lockdown with active ulceration and Charcot neuroarthropathy and it was seen that ulcers actually healed in the first lockdown, most likely

due to the fact that individuals were at home and not on their feet as much, so in effect doing their own offloading. However, there appears to be a significant increase in the numbers of patients now presenting with worsening Charcot neuroarthropathy and ulcers, who also appear to be less physically fit. This has put extra demand on our service.

During these difficult times, due to an urgent need we had to adapt our previous practice while maintaining safe practice for our patients using our orthotic principles/diabetes management and preventative measures. It was a very challenging time for us, however, we developed new skills and competencies and expanded our roles.

The pandemic forced us to practice with new technologies, which now form part of our current practice. We now use the virtual technology of Near Me and telephone consultations. There is now a combined approach of Microsoft Teams and face-to-face meetings. This has reduced the requirement to travel to meetings with easier access for everyone. Training and conferences also became accessible online during the pandemic, which has continued and made CPD opportunities easily accessible.

We have developed new skills/competencies, such as phlebotomy and some orthotists have since been trained as vaccinators and assessors in the ongoing vaccination programme.

Our prescriptive practise has evolved using different orthoses we had not used previously, such as implementing the use of the VACOcast Diabetic walker combined with our previous practices increasing our treatment options.

This was a challenging time for everyone, however, due to an urgent need our clinical practice has improved and developed and this can only improve us as clinicians and as a service that benefits patient care. ■

British Association of Prosthetists and Orthotists (2020) *BAPO Guidelines for Virtual Patient Assessment*. Available at: https://www.bapo.com/2020/04/09/bapo-guidelines-for-virtual-patient-assessment/ (accessed 13.10.2022)

FDUK (2020) *Lower Limb Amputation Prevention Guidance*. Available at: https://www.wounds-uk.com/resources/details/lower-limb-amputation-prevention-guidance (accessed 14.10.2022)

International Working Group of the Diabetic Foot (2019) *COVID-19 and The Diabetic Foot*. IWGDF. Available at: https://iwgdfguidelines.org/covid-19/ (accessed 13.10.2022)