

# The only constant in life is change — a case study of new working practices for podiatry and district nursing due to COVID-19

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Citation: Stanley S, Rawlinson M (2021) The only constant in life is change — a case study of new working practices for podiatry and district nursing due to COVID-19. *The Diabetic Foot Journal* 24(1): 46–50

## Key words

- COVID-19
- New opportunities
- Collaboration
- New models
- Improved outcomes
- Interdisciplinary

## Article points

1. The teams were unidisciplinary and COVID-19 afforded the opportunity to work in a new multidisciplinary approach with immediate effect
2. Improved care delivery was instigated and had the positive impact of keeping patients safe, functional and at home, avoiding duplication of visits and improved healing times
3. Change can be positive and embracing new working models can include technology
4. Sudden changes in the system led practitioners to work together for the common good of avoiding unnecessary diabetes-related hospital admissions to reduce the risk of COVID-19 exposure

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**COVID-19 resulted in a lockdown situation in the UK from March 2020. Overnight, traditional working practice became untenable. Recognition of the necessity to work differently and the implementation of these alternative practices swiftly became a reality. It was not feasible for all patients to attend clinic, or for staff to perform their conventional roles. Shielding and social distancing meant that available numbers of podiatry staff were reduced; patients were scared and, in some instances, unable to venture out of their homes. However, the demand to provide safe, high-quality diabetes care for the population both remained and became increasingly vital. The authors collaborated to develop new working practices within the podiatry service and district nursing teams on the Isle of Wight, and the following case study describes the process.**

The Isle of Wight (the island) had recorded 88 deaths, and 446 confirmed cases of COVID-19, as of September 16, 2020. This is significantly lower than surrounding Trusts, but given the very high demographics of older people on the island, it was imperative to try and prevent a high R rate from the outset. The R rate of the island stood at 0.571. Diabetes not only makes an individual more susceptible to contracting COVID-19, but also COVID-19 mortality (Ruan et al, 2020). Further, the risk of developing infection is accentuated with subsequent limb loss. If a person with diabetes is unable to attend an urgent podiatry appointment, then the request for an emergency dressing would impact on the workload of the district nursing team, as podiatry are not commissioned to provide domiciliary care.

Shin et al (2020) recognised that podiatrists must mobilise and adopt the new paradigm of shifts towards community care. Their goal was to reduce the burden on the healthcare system by keeping diabetic foot and wound patients safe, functional and at home. Almost overnight, COVID-19 changed how district nursing and podiatry collaborated to enable this process.

## Diabetes statistics

Historically, the Isle of Wight has had lower levels of diabetes-related amputation than the demographics would suggest. The directly standardised rate (DSR) for the Isle of Wight is 5.8 major amputations per 10,000 population-years, versus the English average DSR of 8.2. This is despite the Island's high levels of deprivation and the demographic of a white, elderly population with one of the highest per capita diabetic populations in the country. In 2019, the population of the Isle of Wight was 141,538, of whom 9,565 have confirmed diabetes. This is 6.76% of the general population; the national average being 6%.

In general, diabetes prevalence is estimated at almost half a billion people worldwide and is expected to increase by 50% by 2045 (Lazaro-Martinez et al, 2019); approximately 19–34% of these patients will have an episode of diabetic foot ulceration (DFU) during their lifetime. Studies in the UK show DFU prevalence of between 5.3% and 7.4% in the general population (Walters et al, 1992; Kumar et al, 1994). Two-thirds of all foot ulcers heal (Jeffcoate et al, 2006; Prompers et al, 2008) and up to 28% may result in some form of



*Podiatrists Stephen Taylor, Donna Hartley, Joanna Payne and Susan Artress-Brown ready to go out to join the district nursing teams on visits.*

lower-extremity amputation (Armstrong and Lavery, 1998). Every year, more than 1 million people with diabetes lose part of their leg, and a lower limb is lost to diabetes every 20 seconds worldwide (Boulton et al, 2005).

It is essential to give timely care to reduce the possibility of ulceration. Recent analysis suggests that the NHS in England spends more on diabetic foot disease than on breast, prostate, and lung cancers combined (Kerr et al, 2019). This is equivalent to almost £1 in every £100 spent by the NHS in England (NHS England, 2014). The estimated cost to the healthcare economy for DFU and amputation in England for the period 2014–15 was between £837m and £962m.

### Wound categorisation

Rapid triage and treatment of wounds is essential. In the 2017–2019 commissioning guidance, NHS England identified a need for community services to place a greater emphasis on wound care, leading to better patient and system outcomes. Wounds can be categorised as either acute or chronic. Typical acute wounds include traumatic wounds, surgical and burn injuries. Chronic wounds include pressure ulcers, leg ulcers (venous and arterial) and DFU (Fletcher, 2008).

The prevalence of chronic wounds in the general population is estimated to be 2.2 per 1,000 (Martingo et al, 2019). In developed countries, 1–25% of the population will suffer from a chronic wound at some point in their life (Jarbrink et al, 2016). The average cost to the NHS for one venous

leg ulcer is £7,600 per annum (Guest et al, 2018). The Johns Hopkins Center for Injury Research and Policy recently estimated that for a typical leg amputation, the total lifetime costs are \$509,272 (Miller, 2020). With such a heavy burden on the health economy due to limb loss, it was imperative that available staff were utilised effectively during the lockdown period.

### Technology and developments

The opportunity to further develop the podiatry team on the Isle of Wight by embracing the changes necessitated by COVID-19 was a welcome prospect. Technology had previously been developed in conjunction with the Technology Enabled Care (TEC) team manager, podiatrists and a set of willing district nurse team leads and nurses. The Whzan system (technology-enabled tablets and computer systems) allowed virtual consultation between podiatrists, nurses and their patients. Such technology enabled photographic records of wounds to be taken securely and in line with GDPR requirements, ensuring that the podiatry staff could see how the wounds were developing/improving. The district nursing team could quickly refer patients, whose feet had deteriorated, for rapid triage and care. This technology was incorporated and increased confidence for staff working in a home environment rather than the usual clinical situation.

But why was this important? We were prepared for large numbers of deaths and, as with all areas, we knew that the district nurses would be seconded to help with end-of-life care. A gap in provision

thus existed, which the podiatry team was prepared to fill. This followed on from joint working, where the district nurses had been trained by the head of podiatry and each locality was given a screening box for people with diabetes, to ensure that the NICE (2019) requirement for annual foot screening could be combined on a single visit and to avoid duplication.

The Interim NHS Plan, part of the 2019 NHS Long Term plan (NHS, 2019), supports the promotion and implementation of new ways of working to improve patient care. Hood (2002) explains this as the development of roles based on multidisciplinary working and includes those that may fall outside of traditional boundaries. A collaborative care approach to complex DFU was discussed by Stanley and Turner (2004), where a podiatrist and a tissue viability nurse established new working relationships to deal with a particularly difficult case.

Podiatrists primarily deal with wounds pertaining to the foot and ankle, and nurses (particularly district/community nurses) are experts in the field of leg dressings. In essence, approximately 8% of the whole district nursing workforce time is spent on venous leg ulcers, with 2.1 million visits annually (NHS England, 2018). The extended scope of the podiatrist encompasses wound care, particularly in the management of DFU.

Despite acknowledging the effectiveness of working with other professionals (Finch, 2000) and appreciating the concept of multidisciplinary working (Garrett, 1990), where the multiplicity of the patient's needs — social, medical, nursing and therapeutic — cannot be met by a single profession, there is a paucity of literature to illustrate established working relationships.

### **Up-skilling processes**

COVID-19 provided the opportunity for the podiatry team to up-skill, to learn new models of care planning and to encounter and work alongside the district nurses. There were barriers initially, both perceived and real. In hindsight, most of these barriers were in actuality perceived, as the podiatry team realised that compression stockings for leg ulcers, insulin and Clexane injections were a skill that we could develop. The exchange of knowledge and expertise became learned behaviours for the team and

were readily put into practice.

Podiatrists were trained to complete compression bandaging. The authors figured that podiatrists are already skilled at completing ABPIs, so what had stopped us before?

Many podiatrists will be aware of the bandaged leg ulcer patients who attend for podiatry and most will acknowledge at least once in their working life that they have not actually removed the dressings to check the whole foot, as the nurse had done such a good job at the leg compression that podiatrists did not want, or in fact have the skills or dressings, to replicate the work. These are missed opportunities to look at vasculature, pressure areas on heels, skin vitality and general appearance. The COVID-19 pandemic, however, meant that obstacles had been removed, opportunity became a reality and the team were developing themselves as community practitioners.

The nursing team undertook joint visits with the podiatry service initially and then, as time progressed, there was the expansion of mutual understanding and a build-up of trust. The nursing team were peer-reviewing cases and ascertaining effective and beneficial opportunities for both team members. Recognition of early intervention and prevention of pressure ulcer development reduced the need for admission at a point in time when there was extreme fear of COVID-19 proliferation.

The NHS People plan (NHS, 2019) points to collaborating, sharing good practice, embracing innovation and supporting the huge change that we have all witnessed since lockdown started. Podiatry as a profession has encountered a massive technological shift. The podiatry team use Microsoft Teams, Zoom and Attend anywhere, and watching webinars, and have demonstrated flexibility, innovative practice and change management, and adapted at a very rapid rate to the change. Despite challenges, podiatrists have shown that they want to be part of the change conversation, using their transferrable skills and capability within their remit to work across disciplines; in terms of the authors' case, the district nurses were engaged to do likewise.

### **Barriers to visiting**

There were conceptual and perceptual barriers to visiting, initially. The Isle of Wight podiatry team do not undertake domiciliary visits, as it is not commissioned to do so; patients attend clinic.

However, the situation dictated that the podiatry team were not just suddenly in someone's home; there was also the spectre of COVID-19 and fear of spreading the infection. Despite initial reservations, the patients were overwhelmingly happy to see the new practitioners. The benefits for the patient included a reduction in duplication of visits, with a new set of eyes looking at a wound and viewing it from a different perspective. McIntosh and Ousey (2008) analysed data from a survey of podiatrists and nurses regarding offloading. Offloading is an established evidence-based strategy in the treatment of DFU (Armstrong et al, 2005) but, despite this, only 55% of nurses questioned would offload as a management option, but 100% of podiatrists would do this as standard procedure.

The podiatry team suggested offloading and wounds started to heal. The nurses watched the podiatry team debride and observed how removal of dead tissue to a healthy healing base was in some instances quicker and more effective than use of particular dressings. It was noted first-hand how the skills of the nurses in terms of leg ulcer dressings improved the venous return in ulcers that previously were static.

Previous barriers that may have existed, preventing multi-professional collaboration between nurses and podiatrists, were removed. Previous poor levels of communication, lack of awareness of each other's roles and limited exposure to multi-professional learning was reduced markedly at first through necessity and then further through realisation of the beneficial effects.

The 'Improving the Quality of Orthotics Services in England' document (NHS England, 2015) placed an emphasis on effective team working: working for the good of a goal, with a common aim and working together to achieve it. The document explains that a multidisciplinary approach should always be encouraged and applied, where appropriate.

The new model of working offered the chance to share problems, discuss possible solutions and reflect on our practice, thus ensuring that the care provided remained patient-focused throughout (Stanley and Turner, 2004).

## Conclusion

Care was delivered to the group of patients with diabetes in a novel way, where decision-

making was an immediate shared response to the problem presented; the professional barriers that may have existed were removed as a result of this new situation. The ability to change and adapt immediately and identify service delivery opportunities was made possible. This enabled the patient and their family to benefit from reduced travel, reduced social contact and increased opportunity for a reduction in healing times, as care was responsive to the current needs of the patient. Moving forward, the Isle of Wight podiatry team is looking at the possibility of a joint post to enable knowledge and skill sets to be developed, put into practice and, ultimately, collaboration and partnership working to become a norm despite barriers. It was concluded that an open approach to care delivery can reap benefits, not just for the clinicians, but for the patient and their support network as well. ■

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## Online CPD activity

Visit [www.diabetesonthenet.com/cpd](http://www.diabetesonthenet.com/cpd) to record your answers and gain a certificate of participation

Participants should read the preceding article before answering the multiple choice questions below. There is ONE correct answer to each question. After submitting your answers online, you will be immediately notified of your score. A pass mark of 70% is required to obtain a certificate of successful participation; however, it is possible to take the test a maximum of three times. A short explanation of the correct answer is provided. Before accessing your certificate, you will be given the opportunity to evaluate the activity and reflect on the module, stating how you will use what you have learnt in practice. The new CPD centre keeps a record of your CPD activities and provides the option to add items to an action plan, which will help you to collate evidence for your annual appraisal.

1. What is the directly standardised rate (DSR) of major amputations in England per 10,000 population-years? Select ONE option only.  
A. 8  
B. 16  
C. 32  
D. 64  
E. 128
2. What approximate percentage of the UK population has diabetes mellitus? Select ONE option only.  
A. 3  
B. 6  
C. 9  
D. 12  
E. 15
3. Up to what approximate percentage of people worldwide with diabetes mellitus will have an episode of diabetic foot ulcer (DFU) in their lifetime? Select ONE option only.  
A. 4  
B. 14  
C. 24  
D. 34  
E. 54
4. According to Lazaro-Martinez et al (2019), by what percentage is the world diabetes population predicted to increase by 2045? Select ONE option only.  
A. 10  
B. 25  
C. 33  
D. 50  
E. 66
5. According to Boulton et al, 2005, every year more than one million people with diabetes worldwide lose part of their leg. Approximately how frequently across the world is a lower limb lost to diabetes? Select ONE option only.  
A. Every 2 milliseconds  
B. Every 20 seconds  
C. Every 2 minutes  
D. Every 20 minutes  
E. Every 2 hours
6. According to Pompers et al (2008), what approximate percentage of all foot ulcers heal? Select ONE option only.  
A. 25  
B. 33  
C. 50  
D. 66  
E. 90
7. According to Armstrong et al (1998), up to what percentage of diabetic foot ulcers (DFU) may result in some form of lower extremity amputation? Select ONE option only.  
A. 7  
B. 14  
C. 21  
D. 28  
E. 35
8. According to NHS England (2014), what approximate percentage of the total annual health care budget in England is spent on diabetic foot disease? Select ONE option only.  
A. 1  
B. 3  
C. 5  
D. 7  
E. 9
9. According to NHS England (2018), what approximate percentage of the whole district nurse workforce time is spent on venous leg ulcer care? Select ONE option only.  
A. 2  
B. 4  
C. 8  
D. 16  
E. 32
10. According to McIntosh and Ousey's 2008 survey, 100% of podiatrists questioned would offload a diabetic foot ulcer (DFU) as standard procedure. What percentage of nurses questioned in the same survey would offload? Select ONE option only.  
A. 55  
B. 65  
C. 75  
D. 85  
E. 100