

## The diabetic foot: a core component of diabetes management



### Joanne McCardle\* speaks to Daphne Boulicault, Commissioning Editor:

Dr J McCardle currently works as a research fellow in the area of the diabetic foot in the Royal Infirmary Hospital of Edinburgh. Since qualifying in Edinburgh with an honors degree in Podiatry, Joanne has been passionate about the podiatry profession, strategic development and advancing the diabetic foot workforce. More recently she has also received a professional doctorate from Glasgow Caledonian University. Joanne chairs the award winning TRIEPodD-UK who developed

the 'Podiatry Career and Competency Framework for Integrated Diabetic Foot Care'. She is on the committee of the Directorate of Podiatric Medicine in the UK and is a founding fellow on the Podiatric Medicine Faculty in the Royal College of Physicians and Surgeons Glasgow and is the vice chair of 'Foot in Diabetes UK'. Joanne is the author of a number of publications on diabetic foot care and has lectured extensively on the subject in the UK and abroad. She believes in raising the profile of podiatry and diabetes foot care and is on various committees such as the Scottish Diabetes Foot Action Group, DUK Professional Education Group and is in the conference development team for the Diabetic Foot and Foot in Diabetes UK conferences of which she is also on the editorial board. In recognition of her work, she has received two fellowships, from the College of Podiatry and Royal College of Physicians and Surgeons Glasgow.

#### Q Could you give us a brief overview of your career to date?

Since qualifying from Queen Margaret University in Edinburgh with a BSc (Honors) in podiatry, I have been very fortunate to have been able to work in the area of the diabetic foot. Clinical podiatry has always been at the core of my every day role but I have always explored other opportunities to expand and enhance this role. My roles have been diverse and included a part-time secondment as Podiatry QIS (Quality Improvement Scotland) Chair of Scotland, module lead on masters programs, visiting lecturer and chairperson on a number of groups. I have also had the opportunity to lead and be part of research and development within my local department and working across the UK and internationally. This included being the clinical investigator on my own original research which formed my doctorate degree thesis. This has led to my current position as a 'Podiatry Research Fellow (Diabetic Foot)', which I started in August 2014. It is a unique position that enables me to initiate research within my specialist area as well as maintain my advanced clinical skills.

#### Q Have any colleagues in particular, past or present, influenced your career?

Although the diabetic foot world is relatively small, there are so many wonderful individuals who have inspired me over the course of my career. There are a number of health professionals that have influenced my career and often supported me to grow and express myself as a professional. Dr Matthew Young has been an inspiring



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force in diabetes foot care from the start of my career up until now. He has also championed the podiatry workforce as essential in the care of this vulnerable patient group, as have Professor Mike Edmonds and Stella Vig who are at the forefront of diabetic foot care. I was also inspired by the pioneering work being from the likes of Ali Foster, Neil Baker, Martin Fox, Paul Chadwick and Sue Barnett. However, I meet so many inspirational people in my roles and there are far too many to mention by name!

**Q What inspired you to work in the field of diabetic podiatry?**

As a student, I attended the Multidisciplinary Diabetic Foot Clinic in the Royal Infirmary Edinburgh, led by Dr Matthew Young. I had no real experience of diabetic foot ulcer management at this point and knew very little about diabetes, but I was blown away by what the clinic was doing for these patients. Seeing Dr Young working was so different to anything I had seen before and I knew in that first visit that this was the area I wanted to work in. My strategy of continuously pestering the department to visit the department and carry out my student audit worked in the long run as I gained enough clinical experience to secure a future post! The potential scope of practice that podiatrists could have, really excited me. Since then, I have always been focused on the area of diabetes and driving forward services for patients. As my experience has grown, so has my understanding of the complexities of diabetes; foot ulcers are really just another symptom of complications such as retinopathy or nephropathy. Therefore, we strive to ensure that patients are managed holistically by professionals with the right skills.

**Q What do you see as the biggest achievement of your career so far?**

The biggest achievement in my career so far concerns the development of the competency framework for diabetic foot care. I was fortunate to work with a diverse range of professionals and coordinate the piece of work. I believe it is influencing education and practice today in diabetic foot care through its use across the UK as a benchmark for what skills are required to manage patients most effectively. It also highlights the critical role of podiatrists within this area.

**Q From your years in the clinic, what do you see as the main challenges facing effective diabetic foot management in the UK, what are the current strengths?**

There will always be challenges within healthcare in the current climate due to the shifting demographics of aging and increasing populations. Diabetes is rising at an alarming rate across the globe and, as a result, we are experiencing a rise in associated foot complications. Unfortunately, we are not experiencing a synonymous rise in podiatry work force numbers and feet are not always seen as a priority area in diabetes, even though it is one of the most costly and common complications. However, it is becoming more recognized as a requirement of healthcare and clinical care has improved substantially as a result, although we still have a long way to go.

**Q What should be the priorities moving forward in order to improve outcomes & what will these mean for healthcare providers?**

The main priority, in my opinion, is establishing recognition that the presence of a diabetic foot ulcer can significantly reduce the life span in a patient with diabetes. We need to accept this as a serious marker of death. In addition, in those that have had a foot ulcer, more than 50% will go on to experience another ulcer. Further research into preventative measures, better wound management and how to prevent reulceration are essential to ensure we are providing best care for patients. Also, it will strengthen our work force planning and proposals for health boards across the UK if we can provide robust evidence on optimal prevention and management.

**Q You have spoken about the recent launch of Granulox® into the UK market, could you explain to our readers what this product is & how it works?**

Most slow healing wounds are associated with poor blood circulation and a lack of oxygen available in the wound for effective healing. Granulox® (Infirst, UK) is a hemoglobin spray which greatly improves the ability of oxygen to permeate into the wound from the outside, raising the oxygen levels in the wound and enabling wounds to heal faster. Even a small amount of exudate (the fluid produced by moist wounds) can create a barrier to oxygen permeating to the wound but Granulox works in the same way as blood hemoglobin, helping increase the amount of oxygen for transport to where it is needed.

**Q What is the need for this kind of product?**

Diabetic foot ulcers often become static in the wound healing phases and do not move on to a granulating stage which progresses to healing. The longer a wound is present, the more likely it is to progress to amputation. This product supports and catalyzes the delivery of oxygen to the wound far more effectively. The effects of reduced oxygen delivery is an area that is becoming far more prominent and recognized with diabetic foot ulcers and we need something to help this process in wounds. Diabetic foot ulcers are particularly problematic due to the anatomical location of the wounds and are prone to a poor blood supply anyway.

**Q How will the adoption of this product affect patients & clinicians alike?**

One of the real bonus elements of this product is that it is easy to use. This means that it does not require specialist application once the initial prescription has been made by the specialist. It is easy to store and has a substantial shelf life which also makes it easier for patient adoption. The cost of the product per application is not highly expensive so we may see an improvement in wounds that is achievable for many patients. Therefore, this product's adoption and implementation is transferrable across the UK.

**Q How do you see your field progressing in the next 5–10 years?**

Our field is growing all the time and I believe we are progressing alongside it. I would like to see

far more investment into foot clinics and services but we have come forward so much in the last few years. We will no longer be the cinderella of services but will be viewed as a core component of diabetes management. With regards to the podiatry progression and their role, this is also increasing. In the UK, we are becoming recognized as leaders in the field and we have recently been granted Independent Prescribing status. I believe this will influence how patients are managed in the future and more roles that were previously medical are being adopted by podiatrists. However, the key to success in the diabetic foot is to understand that it should be managed in the context of a multiprofessional team and not in isolation, this has been proven to improve patient outcomes.

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*J McCardle has no relevant affiliations or financial involvement with any organization or entity with a financial interest in or financial conflict with the subject matter or materials discussed in the manuscript. This includes employment, consultancies, honoraria, stock ownership or options, expert testimony, grants or patents received or pending, or royalties.*

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