## Success at the World Health Organization — diabetic footwear recognised as essential!

herapeutic footwear for people with diabetes designed to help prevent ulceration relapse has been shown to be effective (Uccioli, 1995; Viswanath et al, 2004; Bus et al, 2008; 2013; Ulbrecht, 2014). It is not known how effective prescribed footwear and orthoses are in those patients identified as 'at risk' in the prevention of new ulcers. However, it would be sensible to assume that prescribed therapeutic footwear would have some efficacy.

Within the developed world, access to prescribed footwear and orthoses is commonplace and is rightly considered to be essential in the effective management of diabetic foot complications. Sadly, in the developing world this is not the case, with many countries having no or very little access to these. In some developing countries — e.g. Tanzania, Sudan, India and Pakistan — local diabetic foot champions train local shoemakers to make sandals. The shoemakers attempt to incorporate some of the main features of therapeutic shoes e.g. rigid rocker soles, cushioning insoles etc.

The implementation group of the International Working Group for the Diabetic Foot (IWGDF) has been seeking ways to address the paucity of knowledge, skills and resources in therapeutic footwear and orthoses in developing countries. This, in part, has started to be addressed by the successful 'Step by Step' training programme and, more recently, the Train the Foot Trainer programmes. We recognised that more was needed so a new initiative was developed to address this — FLIRT comprises two main sections: one is devoted to science and research, while the other is devoted to implementation and education. The latter group is called FLIRT-Bird. Both groups are made up of international experts in the field.

The World Health Organization (WHO) was aware of the IWGDF training programmes and contacted the IWGDF implementation group to cooperate on a very important initiative called Global Co-operation for Assistive Technology (GATE). WHO is the secretariat for the GATE, which recently compiled a list of the essentially prioritised 50 Assisted Living Products (APL). The APL aspires to follow in the footsteps of the WHO Model List of Essential Medicines, which creates awareness among the public, mobilises resources and stimulates competition. It has also supported countries to develop national lists to promote access in their own contexts. The APL is similarly intended to be a catalyst in promoting access to assistive technology everywhere and for everyone.

WHO now has a fact sheet on its website about assistive technology, which is a useful resource for the general public and healthcare professionals alike that clearly explains this initiative and APL's in simple terms. The fact sheet can be found here: *http://who. int/mediacentre/factsheets/assistive-technology/en/#* 

The aim of GATE is to provide governments worldwide with the results of the GATE-identified 50 essential products so they can be reimbursed through health insurance schemes. The other driver is to facilitate not only easier supply, but also reduced unit costs by mass manufacturing, driven by increased demand. WHO undertook a DELPHI project to identify a clearer understanding of the most-needed assisted living products worldwide, however, the result of this placed orthopaedic/diabetic footwear at about 90th in the list, and foot and lower-limb orthoses were afforded an even lower priority.

The next stage in the process was to undertake a global survey, encompassing end users that included professionals, patient organisations and professional associations, to gain further prioritisation of these products. A list of products, including sight, hearing, mobility, cognitive, communication, personal and environmental aids, was produced and circulated worldwide in a survey format to rank need. It was at this point that we were contacted due to the success of the aforementioned IWGDF training programmes. This presented us with a huge challenge as the survey response time was only 4 weeks which, in reality, only gave us 2–3 weeks to send out this



Neil Baker Consultant Podiatrist, formerly Ipswich Hospital NHS Trust Suffolk UK



Kristien van Acker Chair of the International Working Group on the Diabetic Foot; Consultant Diabetologist, Belgium

survey to our network partners. It was clear this was a golden opportunity to obtain WHO backing for the global provision of footwear and lower-limb orthoses for people with diabetes and other patients with neuropathy. We, therefore, wrote a letter to our friends, colleagues and professional associations around the world asking for their support in completing the GATE survey. We can inform you that your input and co-operation was so significant it shocked the WHO organising committee of GATE. Together, we all managed to change the ranking of diabetic footwear from well outside the top-50 to within the top-10 most essential products.

On March 21–22, 2016, we were invited to attend a meeting at the WHO headquarters in Geneva to finalise the essential product list. There were 50 invited delegates from all over the world who were representatives of patient groups in each of the aforementioned areas e.g. hearing, sight, mobility, etc.

On the morning of the first day, time was spent putting forward cases for some of the marginally ranked assisted-living products with discussion following each. In the afternoon, we split into groups to prioritise the products in each category. This was an interesting exercise trying to justify why, for example, therapeutic footwear was more important than other mobility aids, such as walking sticks, wheelchairs, rollators etc. At the end of the day, the products from each category were ranked by priority. The second day was spent discussing which products from those lists should be in the overall top-50 list. We are very pleased and proud to inform you that,

Figure 1. 'GATE' delegates in Geneva WHO headquarters.



not only is diabetic footwear included, but also orthopaedic shoes, lower-limb orthoses, including insoles, and lower-limb prostheses are also in the top-50 list. This is a remarkable achievement given that none of these were in the top-50 ranking before this.

The implication for all those with diabetic foot disease is that footwear now has the backing from WHO to all governments worldwide (*Figure 1*).

The next steps are:

- To produce a preferred product profile developed for each product to guide manufacturers/ procurement and for reference for users
- To develop a training package for communitylevel personnel (nurses, rehabilitation workers, community health workers etc) to deliver a range of basic products
- WHO will also develop a single-window model of service delivery, so that for example, an older adult could go to one professional and be prescribed and fitted with a walking stick or frame, reading glasses, a hearing device
- To consider whether off-the-shelf diabetic footwear could be prescribed and fitted by healthcare professionals with some training (including a foot check and when they need to refer)?

We will be actively involved with the next steps outlined above, although they are still very much in the developmental stage. Having said this, and maintaining consistency with our consensus document for offloading (*www.iwgdf.org*), the IWGDF is already actively working on these areas within their own training programmes.

So the IWGDF would like to thank all of you who contributed by completing the survey via the link we sent you and for making footwear a high priority worldwide.

- Bus SA,Valk GD, van Deursen RW et al (2008) The effectiveness of footwear and offloading interventions to prevent and heal foot ulcers and reduce plantar pressure in diabetes: a systematic review. *Diabetes Metab Res Rev* **24** Suppl1: S162–80
- Bus SA, Waaijman R, Arts M et al (2013) Effect of custom-made footwear on foot ulcer recurrence in diabestes: a multicentre randomised trial. *Diabetes Care* **36**: 4109–16

Uccioli L, Faglia E, Monticone G et al (1995) Manufactured shoes in the prevention of diabetic foot ulcers. *Diabetes Care* **18**: 1376–8

Ulbrecht JS, Hurley T, Mauger DT, Cavanagh PR (2014) Prevention of recurrent foot ulcers with plantar pressure-based in-shoe orthoses: The CareFUL prevention multicentre randomised controlled trial. *Diabetes Care* **37**: 1982–9

Viswanath V, Madhavan S, Gnanasundaram S et al (2004) Effectiveness of different types of footwear insoles for the diabetic neuropathic foot: a follow-up study. *Diabetes Care* **27**: 474–7