

Facing real necessities in the diabetic foot



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(above)*

The diabetic foot is a difficult but not impossible condition. It may seem like a terminal and untreatable disease, but with abundant energy, skill, patience, enthusiasm and coordination of expert multidisciplinary treatment, surprisingly good results can be achieved, if we only face up to the real necessities of care which the diabetic foot demands. Substantial progress has been achieved over the last 20 years in the management of both the neuropathic and the neuroischaemic foot (Boulton, 2004; Edmonds, 2004). In the former, off-loading to relieve high plantar pressures, combined with appropriate debriding, has been universally accepted as the mainstay of treatment (Boulton, 2004; Edmonds, 2004). In the latter, angioplasty and bypass surgery have yielded extremely good results, contributing to increased limb survival. In addition to neuropathy and ischaemia, infection completes the vicious triad that threatens the diabetic foot (Boulton, 2004; Edmonds, 2004; Edmonds and Foster, 2005).

It is now understood that the signs of infection may often be markedly diminished or absent due to neuropathy and poor blood supply to the limb and also that there is a reduced systemic response to infection in the diabetic foot (Edmonds, 2004; Edmonds and Foster, 2005). Accordingly, prompt diagnosis and treatment of infection is now regarded as mandatory (Boulton, 2004; Edmonds, 2004; Edmonds and Foster, 2005). Furthermore, the multidisciplinary approach in Sweden (Larsson et al, 1995), Denmark (Holstein et al, 2000), Italy (Faglia et al, 1998) and the UK (Edmonds and Foster, 2001) has shown a reduction in major amputations.

Amputation rates

Thanks to this increased understanding and new approach, the majority of lower-extremity amputations are preventable (Bakker et al, 2005; Edmonds and Foster, 2005). However, the number of amputations across the world has not been adequately reduced (Bakker et al, 2005). In the US, the number of amputations has risen from 36 000 in 1980, to 54 000 in

1990, 86 000 in 1996 and 92 000 in 1998 (Reiber, 2001). A disparity persists in the amputation rate between people with diabetes and the general population, with a rate of major amputations per year of 3.83 per 1000 in people with diabetes and 0.38 per 1000 in the general population (Wrobel et al, 2001). Additionally, there is a geographical variation in amputation rates.

In the UK, a marked difference in amputation rates has been shown between four cities: Leicester, Leeds, Middlesbrough and Sheffield (Canavan et al, 2003). In the US, there was 8.6-fold geographical variation in age-, sex- and race-adjusted rates of amputations in people with diabetes (Wrobel et al, 2001). Similarly, a 4.4-fold difference in amputation rates was found between the 27 health regions of the Netherlands (van Houtum and Lavery, 1996).

One explanation for these amputation figures is that the benefits from multidisciplinary clinics in reducing amputations are not uniformly accessible to everyone with diabetes. Regrettably, healthcare resources are not available all over the world (Bakker et al, 2005; Edmonds and Foster, 2005). Podiatric education and specialised foot care teams are still lacking in numerous countries. Angioplasty and bypass surgery are technically challenging and not widely applicable (Bakker et al, 2005; Edmonds and Foster, 2005). Moreover, national governments do not always really appreciate the need to spend money on foot care, in order to save subsequent cost of treating complications (Bakker et al, 2005).

Room for improvement

Thus, despite the progress achieved, considerable room for improvement still remains (Boulton, 2004; Edmonds, 2004; Bakker et al, 2005). Two points deserve special attention.

First, an increase in multidisciplinary foot clinics around the world is necessary without delay (Edmonds and Foster, 2001; Bakker et al, 2005). Evidence for the contribution of these clinics to the reduction of amputations and

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improved foot care comes both from the Netherlands (van Houtum et al, 2004) and from the Brazilian diabetic foot project (Bakker et al, 2005). National governments urgently need to be persuaded that this initiative is the most efficient way of reducing both direct and indirect costs of patient hospitalisation and lower-extremity amputation (Edmonds, 2004; Bakker et al, 2005). The International Working Group on the Diabetic Foot has significantly contributed to this awareness of the problem by publishing the *International Consensus on the Diabetic Foot* and, more recently, in collaboration with the International Diabetes Federation, the book entitled *Time to Act* (Bakker et al, 2005). Highlighting the need for urgent action, these organisations have chosen 2005 as the Year of the Diabetic Foot (see page 112).

Secondly, education of people with diabetes is required. Patient education ought to be aimed at increasing vigilance to the danger associated with foot complications and ensuring that patients are familiar with measures of self-care to avoid ulceration and reulceration (Edmonds, 2004; Bakker et al, 2005).

Time to face reality

The time has come to face reality. Members of the foot care team and healthcare administrators should not, like Shakespeare's Coriolanus, 'omit real necessities, and give way the while to unstable slightness,' but try to contribute reliably to the worldwide important issue of improving the outlook for the diabetic foot. ■

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