Guest Editorial: are diabetes-related wounds and amputations worse than cancer?

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Certainly one of the most feared complications of diabetes is the lower extremity amputation (1). This fear is not unwarranted. Diabetes-related ulcer and amputation may be associated with surprisingly high 5-year mortality.

Moulik et al. (2) reported a 5-year mortality of 45%, 18% and 55% for neuropathic, neuro-ischaemic and ischaemic ulcers, respectively. As expected, mortality was higher in ischaemic ulcers than neuropathic ulcers. However, it is fairly evident based on these data that all types of diabetic foot ulcers are associated with high morbidity and mortality. Similarly, approximately half the persons receiving a diabetes-related amputation will not be alive in 5 years.

Certainly, peripheral vascular disease may be implicated as a significant factor associated with shorter life span. Criqui reported the 10-year mortality in patients with peripheral arterial disease and found a substantially higher risk of mortality among patients with large vessel peripheral arterial disease – a factor that may be even more profound today than when it was reported in the early 1990s (3,4). Faglia *et al.* related this high mortality with the absence of revascularisation, citing a 1.7-fold greater risk for death in ischaemic subjects who might have benefited from intervention (5).

How do these data compare with other serious medical conditions, such as cancer? If

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one reviews Figure 1, one might conclude that persons with lower extremity complications of diabetes have 5-year mortality rates similar or worse than many common types of cancer (6–10). In fact, some high-risk subgroups such as persons with renal disease requiring distal bypass may have 5-year mortality rates approaching 95% (10).

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References

- 1 Singh N, Armstrong DG, Lipsky BA. Preventing foot ulcers in patients with diabetes. JAMA 2005;293: 217-28
- 2 Moulik PK, Mtonga R, Gill GV. Amputation and mortality in new-onset diabetic foot ulcers stratified by etiology. Diabetes Care 2003;26:491–4.
- 3 Criqui MH, Langer RD, Fronek A, Feigelson HS, Klauber MR, McCann TJ, Browner D. Mortality over a period of 10 years in patients with peripheral arterial disease. N Engl J Med 1992;326:381–6.
- 4 Golomb BA, Dang TT, Criqui MH. Peripheral arterial disease: morbidity and mortality implications. Circulation 2006;114:688–99.
- 5 Faglia E, Clerici G, Clerissi J, Gabrielli L, Losa S, Mantero M, Caminiti M, Curci V, Lupattelli T, Morabito A. Early and five-year amputation and survival rate of diabetic patients with critical limb

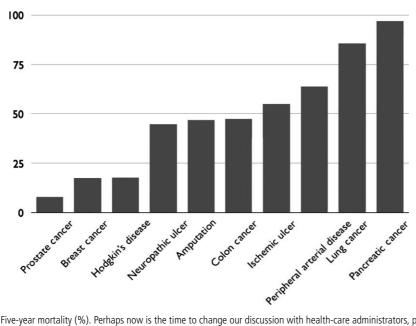


Figure 1. Five-year mortality (%). Perhaps now is the time to change our discussion with health-care administrators, policy makers and especially ourselves. The disease state that many of us treat routinely is, quite literally, killing our patients at a rate comparable to cancer. Addressing this issue aggressively may alter this and make a difference for millions of people worldwide.

- ischemia: data of a cohort study of 564 patients. Eur J Vasc Endovasc Surg 2006;32:484–90.
- 6 Cancer Statistics: Registrations Series. London: Office for National Statitistics (ONS), 2004. ISSN 01434829
- 7 American Cancer Society. Cancer Facts and Figures. Atlanta: American Cancer Society, 2000.
- 8 Kulkarni J, Pande S, Morris J. Survival rates in dysvascular lower limb amputees. Int J Surg 2006; 4:217–21.
- 9 Ramdev P, Rayan SS, Sheahan M, Hamdan AD, Logerfo FW, Akbari CM, Campbell DR, Pomposelli FB. A decade experience with infrainguinal revascularization in a dialysis-dependent patient population. J Vasc Surg 2002;36:969–74.
- 10 Pomposelli FB, Kansal N, Hamdan AD, Belfield A, Sheahan M, Campbell DR, Skillman JJ, Logerfo FW. A decade of experience with dorsalis pedis artery bypass: analysis of outcome in more than 1000 cases. J Vasc Surg 2003;37:307–15.