Best care treatment pathways for diabetic foot patients in primary and secondary care

This report is from a conference that took place on 8–9 October 2007 at The Hotel Ibis, Earls Court, London (the same programme was also held in Glasgow, 4–5 June). The event was supported by an unrestricted educational grant from Smith & Nephew.

Introduction

The conference programme for 2007 focused on some of the key clinical practice issues relating to diabetic foot care and best-care treatment pathways. *The Diabetic Foot Journal's Best Practice pathway of care for people with diabetic foot problems* was launched at the conference and informed the key topics of the programme (for your complementary copy, email info@sbcommunicationsgroup.com stating 'Consensus Document' in the subject line and include your name, job title, trust and contact telephone number – alternatively call 020 7627 1510).

The programme at both venues also included five masterclass sessions, each focusing on a core area of diabetic foot management: wound management; the ischaemic foot; Charcot foot; the litigious foot; and the neuropathic foot.

This is a brief report of the fourth annual Diabetic Foot Journal Lecture (Antibiotics – should we or shouldn't we? Ben Lipsky, USA) and the Keynote Lecture (The diabetic foot – past present and future, Mike Edmonds, London) from the London conference.

The fourth annual Diabetic Foot Journal lecture: Antibiotics – Should we or shouldn't we?

The fourth annual Diabetic Foot Journal lecture was given by Professor Ben Lipsky, University of Washington. He illustrated the severity of diabetic foot problems by showing that skin infections in the US are one of the most common indications for IV antibiotics, with 1.9 million parenteral days of therapy are due to the diabetic foot.

After giving a brief overview of the ways in which we can treat diabetic foot infections, Professor Lipsky put the following questions to the audience to think about.

- When should I prescribe antibiotics?
- Which antibiotic should I prescribe?
- What route of treatment should I use?
- How long should I treat?

When to give antibiotic therapy

Antibiotics had been thought to do more harm than good (Jeffcoate, 1999), but one study has shown that antibiotic use in clinically uninfected diabetic foot ulcers can improve outcomes (Edmonds and Foster, 2004). They should be prescribed when: the clinician is uncertain whether the wound is infected; there is poor healing of the wound; there is discomfort, discharge or odour associated with the wound; or if there is an epidemiologically significant coloniser.

Which antibiotic regimen?

It is preferable to consider a narrow spectrum when considering the antibiotic regimen to use in treating a diabetic foot wound. There can be issues with: the infection (such as clinical severity, bone infection and vascular status); patient issues (for example allergies to the antibiotic or their immune status); antibiotic issues (such as the safety profile, dosing frequency, tolerability, efficacy and cost); and finally pathogen issues (such as antibiotic resistance).

What route of antimicrobial therapy?

The clinician has to decide whether to use a systemic route (parenteral for severe infections and some specific agents or oral for less severe) or whether to use a local route (instillation for vascular/tissue or implantation for soft tissue and bone or topical for skin and open wound infections).

MRSA is important in diabetic foot infections as 20–50% of *S. aureus* isolates are MRSA. This is seen in community and acute settings and highlights the importance of correct antibiotic selection.

How long should I treat?

The length of time that an infection is treated with antibiotics depends on the severity and duration of the infections, but for soft tissue infections it could be up to around 4 weeks, and for bone infection it could take as long as 3 months.

Keynote lecture: The diabetic foot – past, present and future

'Healthcare professionals need to be good detectives,' Mike Edmonds (Consultant Physician, London) told a packed auditorium for the conference's Keynote Lecture.

In the past, diabetic foot problems were generalised under the umbrella term of 'diabetic gangrene'. Gangrene was considered a disease of the poor and disadvantaged, as shown by Lehmann in 1933 when he noticed that there were eight times fewer cases in his private practice than in the charity hospital in New Orleans.

Diabetic gangrene became conceptualised as vascular insufficiency and infection, but little mention was made of neuropathy until 1953 when Martin published his clinical study of 150 cases, and by the 1970s, clinicians had categorised foot problems for people with diabetes as: neuropathic, ischaemic and infected.

In the 1980's came one of the greatest advances in diabetic foot care – the emergence of dedicated multidisciplinary foot clinics whose aims were to diagnose the specific lesions of the diabetic foot, to treat the lesions of the foot rapidly and appropriately, to provide regular and close follow-up of lesions of the foot (including an emergency service) and to prevent the recurrence of foot problems.

The 1990's brought integrated care of the neuropathic and ischaemic foot forward and amputations were being reduced as a result of better care for people with diabetic foot problems.

In a study of 191 individuals undergoing angioplasty revascularisation published in 2002, Faglia et al reported that 51% healed without surgery, 44% only required a minor amputation and as few as 5% had to undergo major amputation.

In order to successfully manage the diabetic foot we need to encourage early presentation, reach a rapid diagnosis and provide prompt treatment.

There is much work being done on the intrinsic factors that influence the foot as well as the extrinsic factors discussed here: there is progress being made with microbiology; and stem cell use is being tested even now.

The future is bright for diabetic foot care but we need to do what we are already saying we do. There needs to be more education and communication between trainers, policy makers and people with diabetic foot problems. ■

Edmonds M, Foster A (2004) *American Journal of Surgery* **187**: 25S–28S

Faglia E et al (2002) *Journal of Internal Medicine* **252**: 225–32

Jeffcoate (1999) *The Diabetic Foot* **2**: 132–

Martin MM (1953) *Brain* **76**: 594–624

The Diabetic Foot Journal (2007) *Best practice pathway of care for people with diabetic foot problems*. SB Communications Group, London