

King's Fund

PURCHASING EVIDENCE-BASED PODIATRY/CHIROPODY SERVICES

Edited by
Christine Farrell



Report of a conference organised for the NHS Executive by the
King's Fund, December 1995

HVN (Far)

KING'S FUND LIBRARY 11-13 Cavendish Square London W1M 0AN	
Class mark HVN	Extensions Far
Date of Receipt 3/5/96	Price Donation

Contents

	Page No.
1. Introduction	1
2. Evidence-Based Purchasing - <i>Dr J Muir Gray</i>	3
3. Evidence-Based Developments: the Diabetic Foot <i>Alistair McInnes</i>	5
4. Purchasing Clinical Services - <i>John McIvor</i>	17
5. Competitive Tendering for Clinical Services <i>Tim Prall</i>	19
6. Competitive Tendering for Clinical Service <i>Adam Darkins</i>	21
7. Competitive Tendering for Clinical Services Providers <i>Elizabeth Salem</i>	23
8. Surgical Podiatry Services - <i>Simon Bamford</i>	24
9. Good Practice in Podiatry Purchasing <i>Marcel Pooke</i>	27
10. Conclusions	29



Purchasing Chiropody/Podiatry Services

Friday 8 December 1995,

A conference held at the King's Fund

Contributors:

Simon Bamford, Deputy Director, Community Services, Allington Trust

Adam Darkins, Medical Director, Riverside Community Trust

Muir Gray, Director, Research and Development, Anglia and Oxford RHA

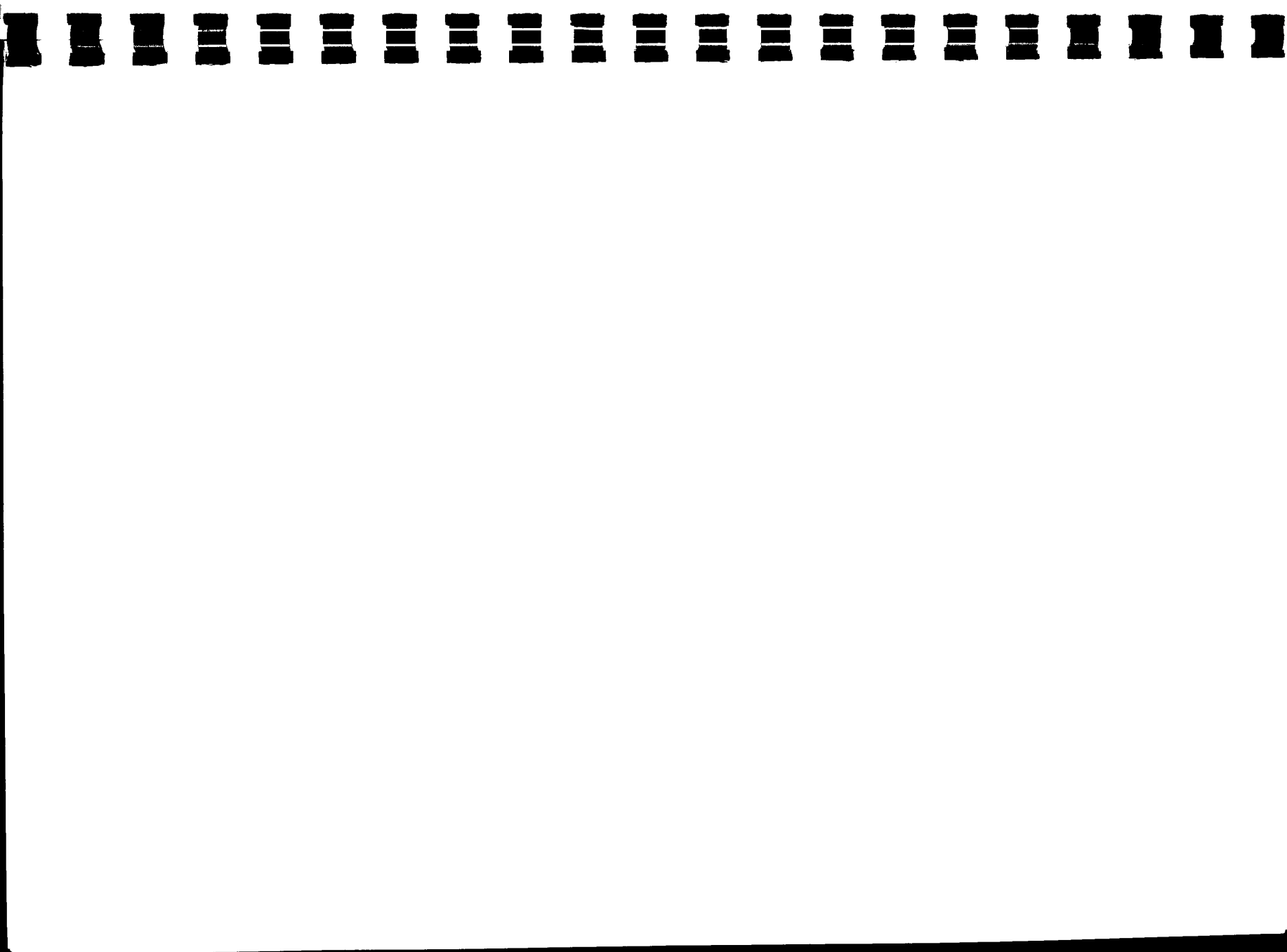
Alistair McInnes, Senior Lecturer, University of Brighton

John McIvor, Deputy Chief Executive, North West Anglia Health Commission

Marcel Pooke, Adviser to Department of Health on Chiropody/Podiatry Services

Tim Praill, Associate Director, Community Health Services, Redbridge & Waltham Forest FHS/HA

Elizabeth Salem, Head of Podiatry/Chiropody Services, Mancunian Community Health



Introduction

This conference was organised as part of the process of helping podiatrists to move towards evidence-based practice. It had the specific objective of helping purchasers to define and buy good quality chiropody services. The first stage in the overall process was a workshop, held in June 1995, where members of the podiatry profession identified research priorities and discussed ways in which a more focused approach to clinical research and the effective delivery of services could be achieved. The agenda for change which emerged from that workshop contained five recommendations.

- * The establishment of a national Podiatric Research Forum and network to develop a research culture within the profession; to promote good practice in research; and to explore the most effective methods of getting research findings into professional practice. Regional groups should also be established where they do not already exist, and linked to the national forum.
- * Education and training for podiatry should incorporate basic research methods and the skills of critical evaluation of research and practice at the undergraduate level. More postgraduate courses at masters and doctorate levels should be available.
- * Practitioners, academics and postgraduate students should be encouraged to write and publish their research in refereed journals.
- * Collaborative work with other professional groups is essential and would help with research funding.
- * The Department of Health/NHS Executive could actively support the development of the research base by acknowledging the need for development and by providing funds to pump-prime the process. Although funds for research are available from the R&D Programme, these monies currently appear to go primarily to medicine/doctors and the process of tendering mitigates against the inexperienced. Other sources of research funds ie industry, business, charities and the research councils, should also be more actively pursued.

The first suggestion, that a national Forum for Podiatric Research should be established, has been taken forward by a Steering Group composed of representatives from the four professional groups; The Society of Chiropodists and Podiatrists, The Podiatry Association, The Association of Chief Chiropody Officers and the Association of Podiatry Teachers; together with academic and practising podiatrists. The Forum was launched in March 1996.

The research priorities identified at the June workshop included:

- * the epidemiological and aetiological aspects of foot problems and deformities;
- * the effectiveness of techniques and interventions;
- * the assessment of need and standardised criteria for assessments;

* the effectiveness of methods of service delivery including cost-effectiveness and multidisciplinary working.

Some of these themes reappeared at this conference. In the first presentation, Dr Muir Gray spelled out the reasons why evidence-based clinical decisions are important. Podiatrists make about two-three clinical decisions at each consultation. The effectiveness and costs of treatments based on these decisions will impact on individual patients and on the NHS. Using the best evidence available as the basis for these clinical decisions is of importance to everyone using and managing the service.

Alistair MacInnes, in his presentation on the diabetic foot, gives an impressive illustration of ways in which knowledge of the existing evidence can lead to improved clinical practice, prevention of foot ulcers and amputations; to financial savings and reduced pain and suffering for patients.

The next five papers from purchasers and providers raised some common issues and problems and discussed ways in which they could be managed.

The experience of competitive tendering, although lengthy and difficult, offered opportunities for reflection and review of existing services. The importance of clinical audit and research as underpinning for good quality services, was emphasised by several providers and purchasers.

John McIvor of Anglia Health Commission described how a collaborative project involving local purchasers, providers, GPs, the Community Health Council and Voluntary Groups reviewed chiropody services and led to improvements including referral guidelines for GPs, increased numbers of discharged patients and the development of specialist services. Simon Bamford offered guidelines for good practice in podiatric surgery. Finally, Marcel Pooke outlined the essential elements of good practice in podiatry purchasing.

The conference provided an opportunity for purchasers and providers to learn from each other. We hope this report will stimulate further debate and good practice between purchasers and providers locally; and that these debates will also inform and involve other clinicians (eg GPs), patients and their representatives. In this way, through collaborative working at all levels, podiatry services will become more clinically effective, and more responsive to local needs.

Christine Farrell

EVIDENCE BASED PURCHASING

Dr J Muir Gray

Oxford and Anglia Regional Health Authority

The case for evidence based purchasing is grounded in the knowledge that clinical decisions drive the health service. Although there are no precise figures, estimates suggest that for every million population, clinicians make 50 million decisions each year - most of them in primary care. In podiatry, it is likely that clinicians make 2 or 3 clinical decisions for every consultation. This is the main reason why evidence based decisions are so important. Clinical decisions should be made on *the basis of a systematic appraisal of the best evidence available*. What is the best evidence? Good quality randomised controlled trials (RCTs) are the gold standard but the evidence from poor quality RCTs is less helpful than good quality cohort studies: the quality of the research is important and needs to be assessed. There are three components to evidence based purchasing: *the evidence; needs and values; and resources*.

The evidence is the thesis on which clinical decisions should be based.

Needs and values: the needs of the population involve issues of prioritisation and the values reflected in different cultures. The USA, for example, puts great emphasis on screening - the 'can do' society - often when there is no evidence to suggest that some forms of screening are effective. For podiatrists concerned with the diabetic foot, the clinical decision will be based on the evidence but also on other aspects of the patients life, lifestyle, attitudes, attitudes to risk and what value is placed on the (possible) side effects.

Resources: money and skilled people will also influence the treatment decision. Evidence is the same for renal failure in Bulgaria and Berkshire but the way health care services deal with it is different because the resources available are different and clinicians have to take account of resources.

Participants made several useful suggestions for ways in which purchasers could be helped to move towards evidence-based purchasing.

- * Providers and managers have a responsibility to inform and educate local purchasers, including General Practice Fundholders (GPFH) about the range of services available, and to discuss better ways of developing contracts and specifications.
- * Purchasers and providers should carry out reviews of existing services and prioritise treatments.
- * Better/more treatment planning and monitoring (audit) would help purchasers to assess the effectiveness of services.
- * Research into skill mix might help to reduce costs and increase effectiveness of treatments/services.

- * Research into skill mix might help to reduce costs and increase effectiveness of treatments/services.
- * Evidence about the investment in chiropody services reducing the longer-term costs of other services (eg diabetic care) is needed.
- * Where the costs of footwear services are in the acute care budget they should be moved to community budgets where they could be more appropriately managed.

EVIDENCE-BASED DEVELOPMENTS: THE DIABETIC FOOT

Alistair McInnes

University of Brighton

The scope for the reduction of costs of diabetes care is considerable. Currently, four to five percent of the UK NHS budget is spent on diabetic care [1]. Twenty five per cent of diabetic patients are admitted to hospital with a primary diagnosis of foot ulcers [2]. Their average length of stay is 22 days [3]. Any of these cases may be preventable with appropriate podiatric care in the community.

Forty five to seventy percent of all lower extremity amputations (LEA) occur in patients with diabetes [4] and 84% of these may be preceded by a foot ulcer [5 & 6]. Each amputation costs around £10,500 [7] (£8500 at 1987 prices). In the UK, lower extremity amputation rates in people with diabetes after adjusting for age and sex, were 14.2 per 10,000 in Caucasians and 3.4 per 10,000 in the Asian ethnic population [8]. The cost of NHS major amputations in diabetes is approximately £13.4 million pounds [7]. Other evidence of the economic impact of diabetes includes: 47% of the diabetic rate of hospital admissions are for diabetic foot problems [9]. Many of these amputations are the results of foot ulcers. The direct costs of diabetic foot disorders in the USA have been reported by Reiber. The treatment of ulceration in non-insulin dependent diabetes accounts for \$150 million (in 1986). A Swedish study (1990) showed that in-patient costs per patient per week for the treatment of foot ulceration range from £40.03 to £383.00 [11]. Mean costs of hospitalisation in the Netherlands in 1992 for a single amputation is in excess of £9,000 and for multiple amputations around £18,000 [12]. Table 1 shows the economic impact of diabetic foot problems.

Table 1

ECONOMIC IMPACT	
Diabetic foot problems:	47% diabetes related admissions
Amputations - UK 1985-86	£8,500 £13.4 million per year (Connor 1987)
Ulcerations - USA 1986 (NIDDM)	\$150 million
- Sweden 1990	£40.3 - £385 (per patient per week) (Apelquist 1994)

There is little evidence of the prevalence of the incidence of foot ulceration in the UK. One study showed a prevalence of 7.4% of past and present ulceration in a diabetic

population of 1077 [13]; another demonstrates a prevalence rate of 5.3% in a diabetic patient population of 811 and an incidence of a foot ulceration rate of 10.2% in a group of 469 patients studied over four years [14].

Table 2

PREVALENCE OF FOOT ULCERATION		
Poole	1077 diabetic patients. Past/present ulceration	Age > 30 years 7.4%
Manchester	811 patients. Mean age: Duration of diabetes. Mean: 43 patients; Past/present ulceration:	65.4 years 7.4 years 5.3%

(Kumar, 1994)

Table 2 shows figures from a national case mix for all admissions for foot ulcer in England and Wales for 1993/4 [15].

Table 3

DIABETES WITH FOOT ULCER					
OPCS/ICD9	Description	Cases	%Trim	%DC	Mean
2500	Diab. mell - no complication	380	6.6	05	12.5
2506	DM + periph circul dis	250	6.0	1.6	13.2
2509	DM + unspec complication	116	4.3	4.3	13.4
2507	DM + other manifestation	70	7.1	2.9	15.2
2501	DM with ketoacidosis	23	8.7	0.0	14.9
2510	Hypoglycaemic coma	12	8.3	0.0	7.8

Applequist in Sweden looked at the management of foot ulceration and the costs of dressing [16].

Table 4

ULCERS - TYPES OF DRESSING AND WEEKLY COST			
Type of dressing	Changes/Week	Cost average treatment period (£)	Cost per week (£)
Superficial ulcers (n=129)			
Hydrocolloid dressing	2.3	1083	40.3
Occlusive zinc oxide	5.8	965	109.6
Dry gauze	7.0	828	118.3
Vaseline gauze	7.1	72	103.0
Dry saline gauze	8.6	1264	150.5
Deep ulcers (n=40)			
Dry saline gauze	8.3	1932	145.3
Streptodornase/Streptokinase	14.0	2389	221.2
<i>(Apelquist, 1995)</i>			

Table 5

ULCERS - TYPES OF DRESSING AND WEEKLY COST			
Type of dressing	Changes/Week	Cost average treatment period (£)	Cost per week (£)
Abscess (n=40)			
Dry saline gauze	9.8	2281	171.5
Gentamicin	14.0	2387	385.0
Streptodornase/Streptokinase	14.0	1814	221.2
Wet saline gauze	19.6	744	286.2
Gangrene (n=64)			
Dry gauze	7.0	1136	118.3
Dry saline gauze	9.3	1644	162.8
Gentamicin	14.0	2541	385.0
Streptodornase/Streptokinase	14.0	1770	221.2
Wet saline gauze	21.5	1256	313.0

(Apelquist, 1995)

The costs of different dressings compared with the rates of change per week suggest that the cheaper hydrocolloid dressing may be more effective. Given the size and economic impact of the use of different dressing it is surprising that randomised controlled trials of dressings for diabetic ulcers have not been carried out in the UK.

The factors involved in diabetic foot disease are well known, if complex; the immunopathies; the contribution of vascular disease in terms of atherosclerosis affecting the tibial and peroneal blood vessels; and micro circulatory problems [17]. The Diabetes Control and Complications Trial clearly shows that good control is vital [18]. Although neuropathy and ischaemia may be present in diabetic patients, some form of trauma will usually initiate the train of events which lead up to amputation [19]. A shoe rubbing on the foot; excessively hot or cold temperatures leading to infection, followed possibly by tissue breakdown and amputation. The extent of the prevalence of diabetic neuropathy depends on the criteria selected. But if signs and symptoms only are considered, just over a third of diabetic patients show signs of diabetic neuropathy [20]. Using these criteria the numbers of people with diabetic neuropathy in the USA is in excess of four million [21]. Unfortunately, patients may be unaware that anything is wrong. The St Vincent Declaration suggested a series of achievable targets to reduce the serious effects of diabetes [21]. One of them was to reduce by one half the rate of limb amputation for diabetes/gangrene over five years. This figure was calculated on the basis of evidence which showed that the target was realistic. A study at Kings College Hospital, London [22] demonstrated that the

amputation rate of diabetic patients could be reduced by 58% by the introduction of a multidisciplinary foot service. A reported reduction of 77% was achieved in Manchester and Winnebago achieved a 100% reduction through the introduction of a foot service for diabetic patients.

Table 6

FOOT SERVICE			
	No. of amp. before	No. of amp. after	Reduction
LONDON	12	5	58%
MANCHESTER	31	7	77%
BOSTON	44	7	84%
WINNEBAGO	16	0	100%

These studies were mostly departmentally based and may not provide the required or appropriate evidence. Nevertheless, there is probably sufficient evidence to indicate that a reduction of 45%-50% can be achieved over a five year period. The team approach to diabetic care does appear to be the way forward. In a key paper Edmonds stated that the role of chiropody is central to the management of the diabetic neuropathic foot and that essential aspects of management included specially constructed shoes; intensive chiropody and precise antibiotic therapy [23].

Table 7

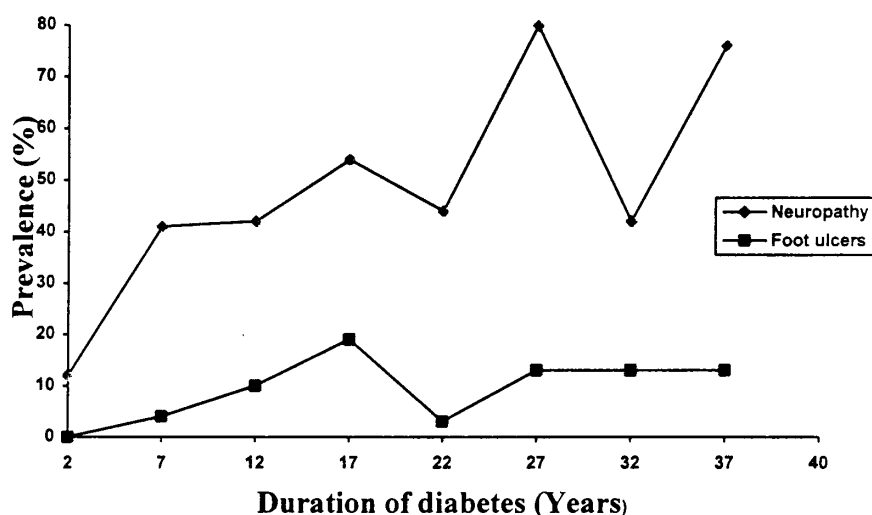
PROGRAMME OF FOOT CARE	
	1. Identification of those at risk (screening).
	2. The provision of measures to reduce the risk.
	3. Education of patients, carers and health care staff.
	4. Management of foot lesions, including access to podiatric services, appropriate orthoses, therapeutic footwear and other services.
	5. Teamwork among disciplines and consultation with speciality services.

Four years after Edmond's paper was published, the British Diabetic Association and The Society of Chiropodists published a joint report which highlighted the shortage of chiropody posts that were dedicated to work with the diabetic population; the lack of communication between general practitioners and chiropodists, as well as resource and organisational issues[24]. A few years later (1994) the Diabetic sub-group of the Clinical Standards Advisory Group was established to look at the impact of the NHS Reforms on diabetic services [25]. This group found, after visiting 12 health districts, "a significant shortage of diabetic specialists; nurses, dieticians, chiropodists and other staff" [26]. In nine out of twelve of these districts there was a significant shortage of chiropodists. Thus, ten years after the demonstration that chiropodists have a key role in the management of the diabetic foot, there is still a serious lack of their involvement in this area of treatment and care. This may be due to scarce resources, the lack of evidence or to the profession's failure to educate other clinicians, managers, purchasers, and diabetic patients themselves.

Screening and monitoring diabetic patients is an important element of chiropodists' work. This process involves identification of 'at risk' patients in the local diabetic population. Unless there is a local register of diabetic patients, the scale and nature of the problem is unknown. A history of previous ulceration from neuropathy and limited joint mobility have been shown to be identifiable factors which can contribute towards the development of foot ulceration and foot problems [27]. A study by Kumar et al showed the prevalence of neuropathy and foot ulcers according to the known duration of diabetes and indicates that better screening does have an effect [28].

Table 8

Prevalence of neuropathy and foot ulcers according to the known duration of diabetes



(Kumar et al 1995)

Screening need not be an expensive course of action. A simple set of Semmes-Weinstein nylon mono-filaments can easily detect a sensory threshold where patients are at risk of future ulceration [29]. Similarly, use of the biothesiometer to detect vibration perception thresholds for those patients who have diminished thresholds and cannot feel a vibration of around 30 volts, is an indication of at risk of ulceration [30]. Expensive equipment like the biothesiometer is not essential. The use of a simple tuning fork can provide this kind of evidence [31]. Simple vascular assessment is important and the ankle/brachial index (ABI) also shows those at risk of future problems; what the chiropodist should do about it and to whom these patients should be referred. Many clinicians and managers will have protocols in place but clearly screening and early prevention is much cheaper than amputation.

Once screening has identified the at risk patient, simple empirical methods can be used to prevent and treat foot ulceration. Removing pressure from the well vascularised foot allows healing. The simple device of padding deflects pressure and allows healing without using multiple, costly dressings over time. There is evidence that orthotic devices are effective. A simple inlay of poron can reduce some of the peak pressures by 18%. Cavanagh of Bolton's work [32] and Young's [30] show that this is a useful preventative measure. Simms showed that proper fitting shoes and protective non-moulded insoles could help at risk patients to avoid ulceration [33].

Table 9

'AT RISK' GROUP FOR DIABETIC FOOT ULCERATION	
* Patients with:	<ul style="list-style-type: none"> - A history of previous ulceration - Peripheral neuropathy - Peripheral vascular disease - Limited joint mobility - Bony deformities - Diabetic neuropathy - Visual impairment - A history of alcohol excess
* Patients who live alone	
* Elderly patients	
<i>(M Young and A Boulton 1995)</i>	

Sometimes it may appear that the profession is too focused on crisis management when evidence of the effectiveness of screening and preventive devices exists; and such treatments can prevent amputations.

Much evidence exists about the way patients do not wear be-spoke shoes or orthotic devices because they are uncomfortable and unattractive. There are problems of compliance but if patients were made aware of the cost-benefits of such footwear and that they could prevent serious complications, much could be achieved in terms of prevention. Better education of diabetic patients is a key element of prevention.

Table 10

FOOTWEAR RECOMMENDATIONS BY RISK CATEGORY

0. Protective sensation intact.	Shoes of proper style and fit.
1. Loss of protective sensation.	Soft non-moulded insoles and extra-depth shoes.
2. Loss of protective sensation and high plantar pressure or deformity.	Custom-moulded foot orthoses, extra-depth shoes, and accommodative modifications.
3. Loss of protective sensation and history of ulcer.	Custom-moulded foot orthoses, extra-depth shoes, and rigid rocker sole for forefoot ulcers.
4. Loss of protective sensation, history of ulcer and high plantar pressure or deformity.	Custom-moulded foot orthoses, extra-depth shoes, rigid rocker sole and accommodative modifications.
5. Neuropathic fracture	
Forefoot Fracture	Custom-moulded foot orthoses, extra-depth shoes, and rigid rocker sole.
Midfoot fracture	Custom-moulded shoes and foot orthoses, rigid rocker sole and reinforced medial shoe counter.
Rear-foot fracture	Fixed ankle boot or patellar tendon-bearing orthosis with surgical boot, custom-moulded foot orthoses, cushioned heel, rigid rocker sole, and lateral heel flare.

(Sims 1988)

Some evidence exists to show that comprehensive, well organised programmes of patient education can influence patient behaviour and decrease diabetic foot problems [34] [35] [36]. Patient education is a key component of the package of footcare.

Although it may seem to local purchasers that their diabetic population is only 1% or 2%, diabetic patients account for 4%-5% of all NHS costs. Investment in appropriate foot care and in activities like at-risk registers, patient education and research will, ultimately, reduce those costs. For providers the messages are that evidence about effectiveness of outcomes is of value to purchasers and patients.

References

1. Clinical Standards Advisory Group. **Standards of Clinical Care for People with Diabetes**. 1994. HMSO, London.
2. Bouter KP, et al. The diabetic foot in Dutch Hospitals: epidemiological features and clinical outcome. **European Journal of Medicine** 1993. 2 (4): 215-218..
3. Wheat LJ, et al. Diabetic Foot Infections: bacteriologic analysis. **Archives of Internal Medicine**, 1986.146: 1935-1940.
4. Most RS & Sinnock P. The Epidemiology of Lower Extremity Amputations in Diabetic Individuals. **Diabetes Care**, 1983. 6 : 87-91.
5. Pecoraro RE, Reiber GE, Burgess EM. Pathways to diabetic limb amputation: basis for prevention. **Diabetes Care**, 1990.13 : 513-521.
6. Larsson J. **Lower extremity amputation in diabetic patients**. Lund University, Doctoral Thesis, 1994.
7. Connor H. The economic impact of diabetic foot disease. In: Connor H, Boulton AJM, Ward JD eds. **The Foot in Diabetes**. 1987. John Wiley and Sons. Chichester, England. pp145-149.
8. Giyrat JS, McNally PB, Burden AC. Ethnic differences in the incidence of lower extremity amputation secondary to diabetes mellitus. **Diabetic Medicine**. 1993.10 : 271-274.
9. Lithner FG. The diabetic foot: epidemiology and economic impact. **IDF Bulletin**. 1992. 8: 7-8.
10. Reiber GE. Diabetes foot care: financial implications and practical guidelines. **Diabetes Care**. 1992. 15 suppl 1 : 29-31.
11. Apelquist J. et al. Topical treatment of diabetic foot ulcers: an economic analysis of treatment alternatives and strategies. **Diabetic Medicine**. 1994. 2 : 123-128.
12. Van Houtum WH. et al. The costs of diabetes-related lower extremity amputations in the Netherlands. **Diabetic Medicine**. 1995. 12 : 777-781.
13. Walters DP, Gatling W, Mullee et al. The distribution and severity of diabetic foot disease: a community study with a comparison to a non-diabetic group. **Diabetic Medicine**. 1992. 9 : 354-358.
14. Young MJ, Brady JL, Veves A, et al. The prediction of diabetic neuropathic foot ulceration using vibration perception thresholds: A prospective study. **Diabetes Care**. 1994.

15. NHS Executive - Information Management Group. **Version 3 HRG Refinement Project**. Reference materials HRG Section K.
16. Apelquist J, et al. Topical treatment of diabetic foot ulcers: An economic analysis of treatment alternatives and strategies. **Diabetic Medicine**. 1994. 12 : 123-128.
17. Boulton AJM. The pathogenesis of diabetic foot problems: An overview. **Diabetic Medicine**. 1996. suppl 1, 13 : 12-15.
18. The Diabetes Control and Complications Trial Research Group. The effect of intensive treatment of diabetes on the development and progression of long-term complications in insulin-dependent diabetes mellitus. **The New England Journal of Medicine**. 1993. 328 : 977-985.
19. Boulton AJM. The pathogenesis of diabetic foot problems: An overview. **Diabetic Medicine**. 1996. suppl 1, 13 : 12-15.
20. Cefalu WT, Clements Jr RS. Diabetic Neuropathy. In: Kerstein MD, (ed). **Diabetes and Vascular Disease**. 1990. J B Lippincott Company. Philadelphia. pp 163-180.
21. World Health Organisation. **Diabetes care and research in Europe: The St Vincent Declaration Action Programme**. 1992. Krans HMJ, Porta M, Keen H, (eds).
22. Edmonds ME, Blundell MP, Morris HE, et al. The diabetic foot: impact of a foot clinic. **Quarterly Journal of Medicine**. 1986. 232 : 763-771.
23. Edmonds ME, Blundell MP, Morris HE, et al. The diabetic foot: impact of a foot clinic. **Quarterly Journal of Medicine**. 1986. 232 : 763-771.
24. Joint Working Party of the British Diabetic Association and the Society of Chiropodists. **Diabetes and Chiropodial Care**. 1990.
25. Clinical Standards Advisory Group. **Standards of Clinical Care for People with Diabetes**. 1994. HMSO, London.
26. Clinical Standards Advisory Group. **Standards of Clinical Care for People with Diabetes**. July 1994. HMSO, London.
27. Fernando DJS, Masson EA, Veves A, Boulton AJM. Relationship of limited joint mobility to abnormal foot pressures and diabetic foot ulceration. **Diabetes Care**. 1991. 14 : 8-11.
28. Kumar S, Fernando DJS, Veves A, Knowles EA, Young MJ, Boulton AJM. Semmes-Weinstein monofilaments: a simple, effective and inexpensive screening device for identifying diabetic patients at risk of foot ulceration. **Diabetes Res. Clin. Pract.** 1991. 13 : 63-68.

29. Kumar S, Fernando DJS, Veves A, Knowles EA, Young MJ, Boulton AJM. Semmes-Weinstein monofilaments: a simple, effective and inexpensive screening device for identifying diabetic patients at risk of foot ulceration. **Diabetes Res. Clin. Pract.** 1991. 13 : 63-68.
30. Young MJ, Breddy JL, Veves A, Boulton AJM. The prediction of diabetic neuropathic foot ulceration using vibration perception thresholds. **Diabetes Care.** 1994. 17 : 557-560.
31. Takolander R, Ranwrda JA. The use of non-invasive vascular assessment in diabetic patients with foot lesions. **Diabetic Medicine.** 1996. suppl 1. pp 39-42.
32. Cavanagh PR, Hewitt FG Jr, Perry JE. In-shoe plantar pressure measurement: a review. **The Foot.** 1992. 2 : 185-194. 1992.
33. Sims DS, Cavanagh PR, Ulbrecht JS. Risk factors in the diabetic foot: Recognition and management. **Physical Therapy.** 1988. 68 : 1887-1902. 1988.
34. Assal JPH, Gfellar R, Eko EJM. Patient education in diabetes. In: Bostrum H, Ljungsten TN, (eds). **Recent Trends in Diabetes Research.** 1992. Almquist and Wiksel International. pp 276-289.
35. Malone JM, Snyder M, Anderson G, Bernhard VM, Holloway GA, Bunt TJ. Prevention of amputation by diabetic education. **Am. J. Surg.** 1989. 158 : 520-524. 1989.
36. Litzelman DK, Slemenda CW, Langefeld CD, Hays LM, Walch MA, Bild DE, et al. Reduction of lower extremity clinical abnormalities in patients with non insulin dependent diabetes. **Am. J. Intern Med.** 1993. 119 : 36-41.

PURCHASING CLINICAL SERVICES

John McIvor

Anglia Health Commission

Chiropractic services represent a very small proportion of purchasers' expenditure. In Anglia it is 0.36% of the total budget; a spend of £600,000 a year and a cost of £12.88 per patient contact. Purchasers need to know what they are getting for these sums of money. Their concerns reflect the concerns of local people and general practitioners (GPs) and include:

- * access to chiropractic services - where? for whom?
- * waiting times - when?
- * quality of service - by whom? the right environment
- * scope of service - what is needed/what should it do; cost and clinical effectiveness.

Three years ago, a foot health project in North West Anglia on chiropractic services failed to produce any significant changes. It did, however, indicate the need for providers to give purchasers more information about the nature of provision. A second project constructed a dialogue between purchasers and providers to identify service problem areas, with regular meetings to chart a new service. Membership included the provider, the public (through the CHC and voluntary groups) and aimed to find out about user concerns. Through this work providers established a good relationship with GPs who became more involved in the service provision. Purchasers were able to help in bringing the groups together and the service is now improving.

The changes included:

- * clear referral guidelines for use by GPs;
- * prioritisation of all patents will form part of 1997/8 contract, including not providing services for some groups. GPs agreed to this if backed by literature;
- * increased discharges (indicates the changing culture - 'a not for life service');
- * targeted services;
- * specialist services being developed; eg podiatric surgery where evidence is convincing;
- * more appropriate skill mix (increase in number of footcare assistants);
- * more investment from some purchasers - but not all GP Fundholders have chosen to invest.

Future Issues

Chiropody can contribute to purchaser's major problem areas in many ways. Examples provided included a reduction of orthopaedic waiting lists with podiatric surgical services and multidisciplinary work on gait analysis for backpain clinics. Providers might consider ways in which they could contribute to community care services with multi-skilled community workers.

Another issue of importance to purchasers is the effectiveness of chiropody services. The profession needs to demonstrate, with evidence, whether their treatments are effective or not. The report from the King's Fund (Research and Development: The Podiatry Agenda, 1995) which identifies podiatric research priorities, illustrates that the profession has begun work on this. Purchasers should be told about it and how and when the recommendations are to be taken forward.

Another challenge is the move to a primary care led NHS. In North West Anglia over half the GPs have their own budgets. The purchasers' role is to plan strategies to meet the need of their local populations; to monitor the implementation of nationwide and local strategies and to support practitioners to deliver services. Chiropodists should participate in local debates and consider their contribution to local services. Some GP Fundholders are employing their own chiropodists. There is a need to control possible fragmentation of services without stifling innovations. This shift needs to be planned and managed.

The recent review of the Council for the Professions Supplementary to Medicine may come up with some threats and opportunities which the profession will need to meet. Finally, chiropody services should take a higher profile and ensure that they put themselves onto the purchasers agenda, working more closely with purchasers, helping them to get good information and to achieve their targets. The production of evidence about chiropody treatment and service effectiveness is an essential component of future relationships with purchasers.

COMPETITIVE TENDERING FOR CLINICAL SERVICES

Tim Prail

Redbridge & Waltham Forest FHSA

This contribution offered guidance to purchasers and providers about managing the competitive tendering process for chiropody services on the basis of recent experience.

The Practical Issues

Purchaser's reasons for going to competitive tendering might include dissatisfaction with existing services and/or individual providers or setting up a new service. Contestability in the market may be another reason.

Some of the consequences of going through the process are uncomfortable. Competitive tendering is a confrontational process with local providers and tests existing relationships. It does however, have the virtue of examining these relationships and laying bare the complexities and principles.

Planning blight may occur during the time (18 months in this case) the tendering process takes. However, the experience gained can be useful for future tendering exercises. Costs are substantial to the purchasers and others because a high level of senior management, provider's and GP's time is required.

Managing the Process

Local providers should be involved in the process as should specialist users of the services (eg diabetologists). Users and the CHCs are important contributors although their expectations need to be carefully managed. External professional advice is essential for assessment of advice from local providers and to make professional judgements about the tenders themselves. Local GPs also need to be involved for many reasons.

The Specification

The specification should let the tenderers know what kind of service is required. For example:

- * foot health promotion - Waltham Forest has a high percentage of Asians in the local population and knowledge of the high prevalence of diabetes in the Asian population means that there is a large unmet need for footcare services;
- * pro-active clinical management, as well as clinical care. Tenderers were expected to understand the need for discharge arrangements and footcare planning;
- * clinical audit, research and development were considered important ingredients of the service.

Sizing up the specification was a problem due to lack of historical information and the ability to assess patient contract requirements. Eligibility criteria must be included. Surgical podiatry was not included at this stage. The specification made clear that the service should be concerned with prevention, health promotion, and education of people with footcare problems. The latter was particularly important because of the high proportion of unmet ethnic population need. Proactive clinical management, clinical audit, research and development plans were also included.

The Process

A senior manager needs to be in charge and a commissioning team set up to steer the work. A decision was made to use the closed tender procedure and the tender was advertised. Five tenders were selected. Quality, deliverability, and price were the three selection criteria. This was made clear at all stages to enable explanations to be given to the health authority and to unsuccessful applicants. Quality standards and eligibility criteria have been written into the contract. The issue of deliverability is important and a six month lead time was essential. Management time does not end with the award of the contract. Contractual arrangements need to be sorted out and there is a need to work through relationships with providers. Competitive tendering does not necessarily save money.

COMPETITIVE TENDERING FOR CLINICAL SERVICE PROVIDERS

Adam Darkins

Riverside Community Trust

Riverside Community Trust has been through five tendering exercises including delivery of domiciliary care to oral maxillo facial surgery services.

Views of a provider and some of the lessons learned

Competitive tendering is not a simple process and it is important to assess the Trust's capacity in terms of time and resources to go through the process. Reasons for going into the tendering process range from dissatisfaction with existing service(s) to being a stalking horse - to try to change the level of service - to push the existing provider to improve.

What is the intended outcome? In terms of evidence-based practice and clinical audit and changing the system, it is a complex process, which involves getting the right skill mix, training process, audit process, and research and development.

Issues

- * **price:** service specifications are not always clear. All the elements are in there but they don't always make sense. It is important to negotiate with the local providers. The existing price of service may not be known.
- * **quality:** not many good measures of quality exist. Is quality rhetoric or is it real? Existence of clinical audit is important because it should reveal quality information.
- * **set-up costs:** need to be considered. There may be additional equipment, external management costs, facilities and training costs in addition to existing service costs which will increase the cost of an external tender.
- * **staffing and staff transfers:** existing staff have to come across on existing terms and conditions and since this may be privileged information there is no knowledge of these costs or the numbers of staff who will transfer. Skill mix becomes difficult. Redundancy costs may be incurred. All this means that the process has to be developmental and the new service will take time to become embedded.
- * **clinical risk:** existing services may be sub-standard and there is concern to make sure that the tender offers good clinical care. This makes it likely that the price of the external tenders will be higher than others.
- * **evidence-based practice:** what weight is attached to this?

- * **collaborative working:** few services are discrete. Some major disruption will be inevitable and there must be collaborative working with other parts of the local service if the tender is to be successful.
- * **sites:** may not be provided. The issue of working in another Trust's sites has not yet been worked out. In theory sites belong to the Trust and if they wish to re-deploy other services to these sites, new sites will have to be found by the external tenderers.
- * **apples with cauliflowers:** if you want to provide a new developmental service there is a problem of comparing apples with cauliflowers.
- * **service specification:** is a real problem. The level of some specifications compared to the business world, is appalling. There is so little information about what is required and it may be necessary to provide a service specification for the service you are tendering for.
- * **level of detail:** to put in the tender is difficult to decide. Some specifications ask for information to be provided in a limited space and time spent on tenders is vast.
- * **understanding what the tenderer wants:** this is crucial but difficult to get at. The local politics can be difficult and may de-stabilise the Trust - and the question to be asked is: is this a process which will go through?
- * **privileged information:** assumptions have to be made - local providers may have key information which is not available to external bidders - and one ends up making safe assumptions to protect quality.

Conclusions

Evaluations of competitive tendering have been given little attention. What about the patients/clients? It is difficult to see how they can be involved in the process.

Riverside has learned many lessons and does not reject competitive tendering. Potentially the process may be important. Eventually, if patient-care led commissioning goes towards cost per case, we may be seeing a much more micro service.

Riverside learned a great deal from the process and is now thinking much more critically about what is being done and the reasons for it.

COMPETITIVE TENDERING FOR CLINICAL SERVICES PROVIDERS

Elizabeth Salem

Mancunian Community Healthcare Trust

The Mancunian Community Trust is a fourth wave Trust with a population of 435,000 and high levels of deprivation. It was created from three merged community units. Decisions were taken to re-focus the service after the Trust was created. A new strategic direction was achieved through action and business planning and clinicians' service reviews. After the merger the chiropody service was re-structured to achieve value for money, responsiveness and clinical effectiveness. It has a wide portfolio of community hospitals and primary care contracts. The review enabled the service to equalise access across the city in line with the recommendations of Feet First (1994). Chiropody departments are well staffed. Pressures on the service are: £1 million budget reduction; 1% cut next year; 8% cut in management costs; outcome driven servicing.

A flat management structure has devolved decisions to local units with small teams accountable for their own day-to-day management. The tendering process imposes strains but in view of tight timetables the service is in the fortunate position of being able to make its own deadlines. Motivation of staff is maintained by regular staff appraisal for training needs and monitoring to support junior staff.

A good practice approach to care when tendering for services is essential and it is important to support this with evidence from: research and clinical audit two major projects: one in diabetes education; the Mancunian Trust Chiropody Service is leading the other evaluating orthotic devices for children with special needs; it is also involved in two research projects; one on diabetic foot care and education; and the other on ethnic foot

Quality standards are monitored annually in a systematic way with set quality criteria. Quality does not come cheaply but it is important to demonstrate effectiveness in order to market the service. A block contract is negotiated with the health authority annually and there are contingency plans in case the health authority decides to market test. Health providers are an important influence. There are 111 GP practices in Manchester - only 10 are GP Fundholders. The Mancunian experience indicates that the following criteria influences purchaser decisions:

- * service review
- * project management
- * sound financial management
- * innovations and adaptability

The Trust now has tendering guidelines for all services.

SURGICAL PODIATRY SERVICES

Simon Bamford

Community Services, Allington Trust

Podiatric surgery is ambulatory, elective, daycase surgery. Ambulatory surgery does not warrant inpatient admission, the patient being ambulant with or without assistance immediately after surgery. It is subject to the limitations of the operators' skills and training and regulated by the professional body for Chiropodists and Podiatrists. Forefoot (soft-tissue anywhere on the foot) operations are carried out under a plain solution of local anaesthetic and include a range of soft tissue and bone procedures. As with all elective surgery, patient selection is crucial to the success of the procedure.

Podiatric surgery is carried out by State Registered Chiropodists who have successfully completed post-graduate qualifications in the theory of surgery and surgical pupillage (over a period of 3-5 years). A final examination is carried out by examiners from the Society of Chiropodists and Podiatrists and a Consultant Orthopaedic Surgeon. The term podiatrist is being adopted to cover all State Registered Chiropodists, and in the near future, those with the additional qualification in surgery are more likely to be known as **Podiatric Specialists**.

A range of minor and intermediate procedures are performed. **Most** fall within the GP Fund, a few outside it. Procedures **within the GP Fund**, (with OPCS Codes) include:

- * surgical treatment of ingrowing toenail - S64, S68, S70.1
- * excision/biopsy of skin or subcutaneous tissue - S05, S06, S08-11, S13-15
- * removal of internal fixation from bone - W28.3
- * osteotomy for hallux valgus/rigidus - W57.1, W15
- * correction of hammer toe - W59.4, W59.5
- * soft tissue operations on joint of toe - W79
- * excision/re-excision of ganglion (on any area of foot) - T59, T60
- * aspiration/excision of bursa - T62
- * excision of lesion of skin - S06
- * operations on bursa - T62
- * primary excision arthroplasty 1st metatarsal joint - W57.1
- * fusion on interphalangeal join great toe - W59.4

Outside GP Fund - excision of neuroma, removal of exostosis.

The Ipswich Podiatric Centre was constructed in 1994 from funds raised through appeal and from the RHA. The unit has a well equipped fully air-conditioned operating theatre, pre-op and post-op rooms, changing rooms for staff and patients, consulting rooms, reception, waiting and office facilities. Operations are carried out here.

All patients referred will be assessed by a podiatrist. The guidelines give an indication of those patients who are best suited for ambulatory foot surgery. They are:

Age: All age groups can be considered for surgery.

Medical History: Generally a good medical history is required. Patients with diabetes mellitus and known osteoporosis are excluded from surgery. Patients with a history of rheumatic fever or with implants (pins, plates, pacemakers etc) will normally require prophylactic antibiotic cover to be provided.

Blood Pressure: A patient exhibiting a systolic BP over 200 mm Hg or a diastolic BP above 110 mm Hg, will normally be discussed with the GP prior to surgery - dependant upon age.

Ankle Brachial Pressure Index: An ankle brachial pressure index less than 0.95 will be referred back to the GP for further assessment.

Medication: Patients on cytotoxic medication or anticoagulant therapy are excluded from surgery. Patients recently started on colloidal gold and those taking oestrogen or steroids will be discussed with the GP about their pre-operative management.

Social: It is essential that the patient is on the telephone and has someone to take care of them at home for up to two weeks post-operatively.

Deformity: Some foot deformities do not lend themselves to the type of surgery carried out at the Podiatric Centre and may be referred back for review or orthopaedic surgery.

Standards

Referrals: All patients should be referred by a general practitioner.

Assessment: Assessments will take place within 4-8 weeks of receipt of a referral, unless being grouped for in-house assessments. Assessments and follow-ups can be provided in GP surgeries - with just the operation being performed in Ipswich if necessary. If not assessed in Ipswich, all patients will require a full blood count to be carried out and those patients for hallux valgus operations, neuromas, exostoses and suspected foreign body operations will require X-rays. These should be A/P weight bearing - and oblique views. the X-ray films as well as the reports are required. The patient will also be issued with an information package. The GP will be informed of the outcome of the assessment and the proposed date for the operation.

Operation: The operation will generally take place within 4-8 weeks of the assessment unless the GP or patient has requested otherwise. Procedures take approximately 1-2 hours. The patient will require a car (with escort) to accompany them home. Transport can be arranged through the Ambulance Service for patients

without cars and this charge is added to the tariff price. The Allington experience suggests that it is best for the patients to have a relative or friend transport them to and from the unit. Post-operative painkillers are provided (Co-codamol), and GPs are normally able to provide stronger medication where there are low pain thresholds. Patients are welcome to bring a cassette-tape of music with them if they wish, to help keep them relaxed during the procedure. Patients are issued with a post-operative surgical shoe and elbow crutch (if necessary). GPs are informed by fax immediately the procedure has been carried out.

Follow-up:

- * patients are monitored post-operatively and issued with surgical shoe and painkillers.
- * patients are telephoned at home within 24 hours of the procedure.
- * the first dressing change is within 5 days of the operation.
- * suture removal takes place 12-14 days after the operation.
- * a follow-up appointment is carried out after 4-6 weeks.
- * patients should be advised that they may be required to take part in longer term audits.

GOOD PRACTICE IN PODIATRY PURCHASING

Marcel Pooke

Objectives in Good Purchasing Practice:

Some of the objectives of good purchasing practice were identified. They were that purchasing/contracting should be moved away from primarily finance and moved towards clinical effectiveness and quality criteria. Any contract planning should involve service strategy developments and health needs assessments.

The service should be relevant to the needs of the local population. Quality criteria and clinical audit should be essential ingredients of the contract and the service volume should be defined.

Clinicians should be involved in the contracting process and a dialogue between provider service managers and purchasers should continue throughout the year. Contract negotiations are 'negotiations', with agreement on: service capacity; changes in volume; setting and maintaining clinical standards; referral guidelines; and costing and pricing.

Purchaser Requirements and Questions

Purchasers will have a range of questions and requirements and these are some of the issues that need to be addressed. Information and statistics should be provided about patients access, new patients, return appointments, emergency response rates, and footcare return intervals? failed appointment rates, global non-attendance rates, specific black spots, and comparison with other similar services. Clinician qualifications, including clinical updating, chiropody assistant training, and surgical podiatry qualifications.

Explanations should be offered about the nature of the skillmix and workload potential and of staffing complements. The nature of the boundaries in the Trust, and across Trusts should be described so that 'barriers' to seamless care can be identified. Contingencies for the 'at risk' patient should also be examined.

Specialist services like Orthotic Labs and Footwear Services should be described and specified; as should a typical episode of care, its frequency and duration.

Meeting the Needs of Podiatry Patients

Minimum standards of patients' access to services should be specified and whether there is open access to service or whether it is based on need, rather than age, sex, or disability.

A new patient appointment should involve a primary care assessment of at least 30 minutes duration. After this a treatment plan should be given and agreed with the patient, and expected outcomes given.

If clinical orthoses are prescribed they must be acceptable to patients. Patients should also be given self referral access to repeat appointments

Clinical Audit and Quality

Audit is an essential feature of good quality care. To be successfully involved in audit services must demonstrate that the medical record system is adequate and up to National Records standard. Records should be detailed and signed by the practising clinician. There should be demonstrable clinical updating by all clinicians; infection control and 'risk' reducing methodologies and safe equipment and instrumentation.

Cost Analysis

Costing and pricing should be transparent and associated with costing schemers. In competing situations it is important to ensure that like with like comparisons are being made, and to look at unit costs. A broad and lateral view of health gain and cost benefits should be taken together with the preventative aspects of podiatry.

The costs of providing continuity of service are also an issue. Competitive tendering or directive management should be considered and costed healthcare resource groups and price banding are essential.

Key Benefits of Podiatry Services

The real benefits of podiatry services should be highlighted. They are: high demand patient services with high levels of preventive possibilities, especially elderly, children, and diabetics patients.

They are cost effective when compared to orthopaedics or other medical interventions. They are primary care/community care led; offer expertise in surgical footwear; surgical podiatry; and simple footcare services.

Next Steps

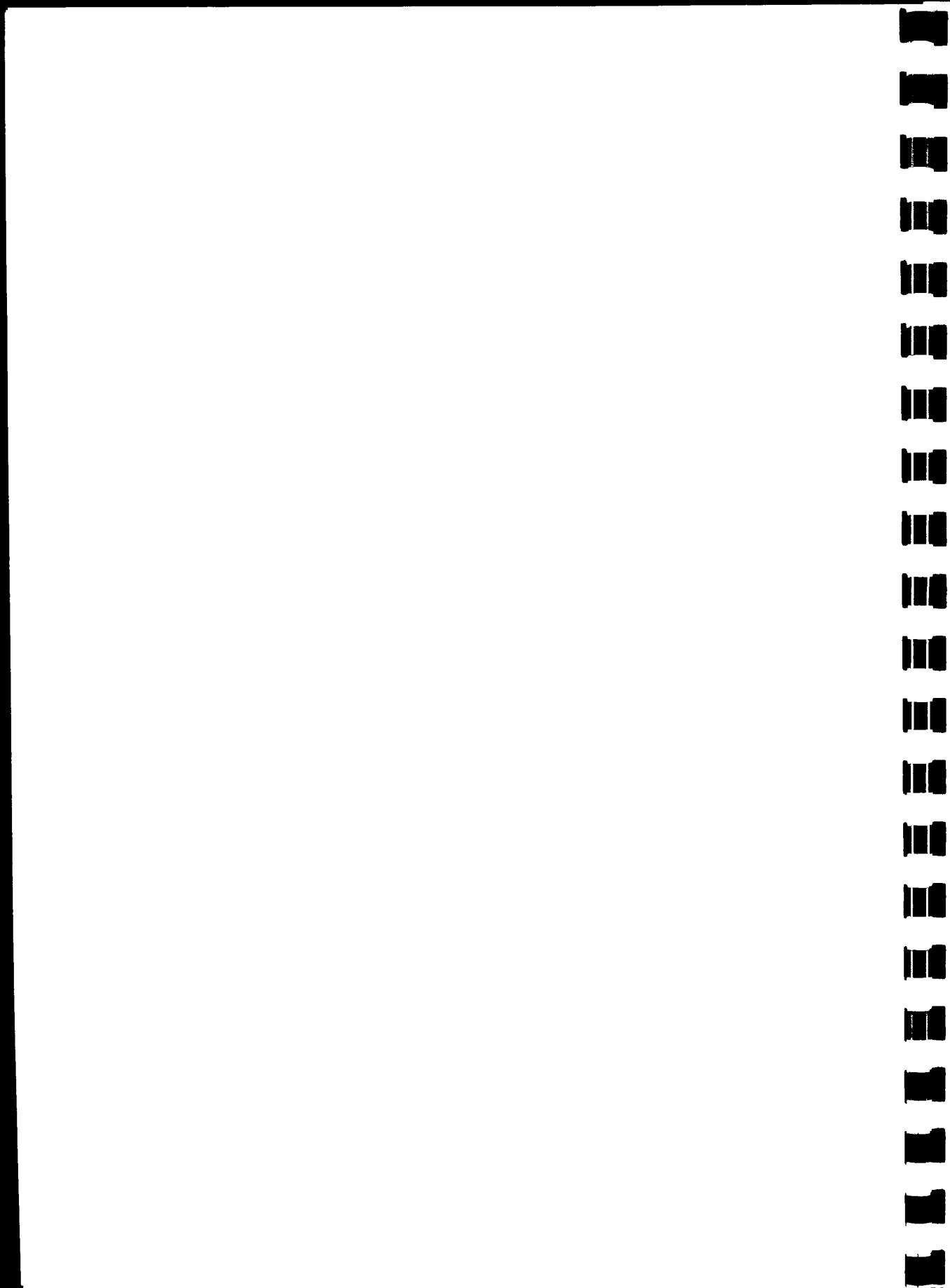
The next steps for improving purchasing practice are:

- * collaboration on service specifications;
- * assisted funding on IM&T developments;
- * support clinical initiatives;
- * support for continuing education;
- * cost and volume and cost per care contracts;
- * development of protocols and guidelines on all aspects of service;
- * R&D to support clinical effectiveness;
- * support undergraduate training.

Conclusions

The presentations and discussions helped to clarify the kinds of evidence and information purchasers need to have from providers. Before some of this can be made available, chiropody managers and clinicians should:

- * review existing services to identify need and 'at risk' populations;
- * initiate more treatment planning and monitoring and introduce discharge criteria;
- * define eligibility criteria for nail cutting services;
- * demonstrate the care for preventive services, especially for diabetic populations;
- * offer more proactive information and education for purchasers, GPs and patients;
- * become more involved in clinical and service audits and use results for feedback, service improvement and publicity.



King's Fund



54001000645583



King's Fund

11-13 Cavendish Square
London W1M 0AN
Tel 0171-307 2400