Dealing specifically with the 50 drugs commonly used in general practice, the Swedish guidelines recommend that we should maintain our present levels of knowledge of drug names, presentations, dosages, important side effects, interactions, contraindications and the drug in the context of the disease. They recommend additionally that a clear understanding of receptor sites, mediators, effector mechanisms and physiological compensation be achieved for all 50 drugs.

At the residential course for Northern Irish general practitioner trainers in April 1989, the Swedish principles were explained and the course members were invited to draw up their own lists of commonly used drugs about which they felt all general practitioners should have very comprehensive knowledge, under the headings: pain/rheumatism, circulation, psychiatry, respiration, gastrointestinal tract, urinary tract and gynaecology. Two groups of doctors drew up lists of drugs independently; 58 drugs common to both groups were selected (not far beyond the Swedish figure of 50). The level of agreement was quite close, one group suggesting 12 extra drugs and the other group an extra nine. This indicates that an academic or collegiate unit prepared to accept the challenge of delivering a series of one-day pharmacology seminars for general practitioners, based on around 70 drugs, could satisfy the preferences of most family doctors. At the rate of three such seminars per year, each consisting of eight 40-minute talks, participating general practitioners could be equipped with drug knowledge to the recommended Swedish levels within three years. Annual seminars would ensure that achieved levels of knowledge were subsequently maintained.

Even if agreeable to the profession, these proposals clearly could not be implemented in the UK in less than five years. In the meantime, carefully compiled and thoroughly tested published practice formularies,[9-11] though difficult to implement, are secure stepping stones to the firm ground of rational prescribing. Without undergoing the rigorous intellectual exercise just described, any general practitioner who uses a published formulary prescribes from a logical range of proven drugs, chosen for maximum safety and minimum risk of serious interactions. Working with a more limited range of medicines, the general practitioner can then become ever more knowledgeable about commonly used drugs. Such practice must be good for patients and good for general practitioners too, since adoption of a formulary must protect us from unwarranted criticism by statutory auditors.

Yet is it not far better, in every sense, to commit ourselves in the longer term to the achievement of rationality by thorough scientific understanding, as our Swedish colleagues are doing?

H McGavock

Director, Queen's University
Drug Utilization Research Unit, Belfast

References

1. Beardon PHG, Brown SV, Mowat DAE, *et al.* Introducing a drug formulary to general practice — effect on practice costs. *J R Coll Gen Pract* 1987; **37**: 305-307.
2. Van Zwanenberg TD, Grant GB, Gregory DA. Can rational prescribing be assessed? *J R Coll Gen Pract* 1987; **37**: 308-310.
3. Needham A, Brown M, Freeborn S. Introduction and audit of a general practice antibiotic formulary *J R Coll Gen Pract* 1988; **38**: 166-167.
4. Essex B. Towards more rational prescribing *Br Med J* 1989; **198**: 1052.
5. Field J. How do doctors and patients react to the introduction of a practice formulary? *Fam Pract* 1989; **6**: 135-140.
6. Reilly PM, Patten MP. An audit of prescribing by peer review. *J R Coll Gen Pract* 1979; **28**: 525-530.
7. Harris CM, Jarman B, Woodman E, *et al. Prescribing — a suitable case for treatment. Occasional paper 24.* London: Royal College of General Practitioners, 1984.
8. Block I, Svender O. Guidelines for continuing drug education for general practitioners in Sweden. *Lakartidningen* 1986; **83**: 666-667.
9. Grant GB, Gregory DA, Van Zwanenberg TD. *A basic formulary for general practice.* Oxford University Press, 1987.
10. McGavock H, Johnston GD, Woods JO, *et al. Practice formulary.* Belfast: The Royal College of General Practitioners, Northern Ireland Faculty, 1st edition, 1987, 2nd edition, 1989.
11. Ferguson JJ, Gilleghan JD, Gold HJ, *et al. Lothian formulary no. 2.* Edinburgh: Royal College of General Practitioners, Lothian Liaison Committee, 1987.

Supply of medical and surgical appliances: is a new approach needed?

THE debate on the organization of the supply of appliances to patients is gathering momentum. A number of reports have recommended changes in the supply arrangements,[1,2] and advances in production techniques[3,4] would make these changes easier. The current arrangements are fragmentary and inefficient, and a different approach is needed. In the light of the health authorities' budgetary difficulties a more efficient service that provides a more acceptable end product is required. This is an important matter for general practitioners, because with poor appliances patients will adapt less well to their environment, thus placing a further drain on primary care through secondary morbidity.

Current service

The orthotics provided by the current service are calipers (leg irons) and other limb splints, surgical shoes and alterations to the patient's own shoes. In addition, there are supports such as corsets and trusses, stoma belts, knee supports and hosiery. Alterations to shoes are carried out free of charge.[5]

General practitioners are allowed to prescribe only hosiery and some trusses on FP10 forms. Patients can take the prescription to a pharmacist who will provide an item from stock or they can take it to an appliance maker who will make a made-to-measure appliance. For all other orthotics, primary health care workers must refer the patient to a specialist. The specialist may be an orthopaedic surgeon, a rheumatologist, a vascular surgeon or a chiropodist in a foot hospital. Only specialists can make the order for the appliance. They authorize the appliance to be made and stipulate the specification, selecting from the HMSO publication *MHM 50.*[6] Allowing only specialists to order appliances that have to be individually made seems to be for reasons of competence and cost.

In the UK private companies supply appliances to 98% of hospitals and a company fitter holds clinics in the hospital. The fitter usually has a higher national diploma in orthotics and prosthetics. At the first appointment the fitter measures the patient and orders the appliance in basic form from the company. If the fitter wishes to change the order he or she must obtain

costings and refer back to the specialist. The appliance is 'fitted' at further appointments and is returned to the factory for each correction. The patient pays no fee; the company charges the health authority on a scale agreed in advance, for example, in 1988 a caliper cost approximately £400 and shoes upwards of £250. The charge is the same whether the appliance has to be fitted three or four times or is more straightforward.[1]

National Health Service appliance workshops, which carry out research and development, supply appliances to the remaining 2% of hospitals. These centres of orthopaedic excellence are sited at Stanmore, Birmingham and Oxford.

Satisfaction with the service

In a study of patient satisfaction with surgical footwear commissioned by the Department of Health and Social Security in 1979,[7] 82% of patients were satisfied or very satisfied overall, but 30% experienced discomfort and 29% had difficulty putting on the footwear. Although the contract specifies six weeks, 34% of patients waited over two months for a finished product and 35% considered that they did not have enough pairs of shoes. Poor cosmesis was a problem for 29% of the patients.

Referring specialists, too, are dissatisfied with the service. In a study of consultants' satisfaction with surgical footwear, many expressed discontent with the speed of delivery and a fifth were unhappy with the suitability of the shoes.[8]

In 1987 the cost to the NHS of supplying appliances was £38 million. Because of the lack of continuous central records on the provision of appliances, the numbers of patients involved are difficult to estimate but in 1974 nearly 88 000 patients received some form of surgical footwear.

Inefficiencies in the existing service

In the existing service referral through a consultant outpatient department for all but the most trivial appliances slows the patient's entry into the system. The consultant refers the patient to a fitter who then orders an appliance to be made by skilled craftsmen at the factory. Any corrections to the appliance have to be made by the craftsman so the patient may have to return to the clinic for many fittings. In addition, manufacturers are not research institutions and innovations are slow to be implemented.

A fitter may consider a different type of appliance to be more appropriate but in the existing system there is little liaison between the fitter and the referrer and thus the role and skills of the fitter are devalued.

The current contract available to manufacturing companies is not sensitive to the needs of the patient. There is no incentive for a company to make a satisfactory appliance quickly because customer satisfaction and waiting time are not included in the contract.

Proposals for an improved service

An integrated and multidisciplinary approach to assessment and provision of appliances is needed. At present the patient is struggling to adapt to the pattern of service but the service should be adapting to the needs of the patient.

Rational referrals. Not all appliances need to be prescribed by a consultant. The range of appliances available on prescription from within general practice should be extended to include all trusses, corsets and hosiery. For those appliances where the general practitioner and the patient would benefit from the guidance of a consultant there should be multidisciplinary clinics dedicated to the provision of appliances. Direct referral to these clinics could be made by general practitioners, physiotherapists and chiropodists. The clinic would be staffed by clinicians, physiotherapists and fitters and craftsmen from the appliance suppliers. Small adjustments could then be made on the spot.

Centres of excellence. The existing centres of excellence should continue to carry out research and development but the results of their work need to be fed back to the manufacturing companies more effectively.

Manufacturers' contract. Platt argues that orthotists are unable to reconcile their professional duty to the patient with their commercial duty to their company and that the patient is most often the loser.[1] He goes on to suggest that orthotists should not be in the employ of maufacturing companies. It seems unlikely that the current government would support such a move in an industry which is effectively already privatized. However, if there were competition between manufacturing companies for contracts where measures other than cost were involved, then the orthotists' dilemma would be resolved. The contract needs to be cost and performance sensitive. Health authorities could continue to look at price when inviting tenders but would also look at evidence of patient satisfaction when renewing contracts.

Patient satisfaction. Since appliances are never ideal in the sense that the patient would rather not have one at all, they are unlikely to be the subject of praise. However, measures such as waiting time, number of refittings, and perceptions of improvement in mobility and comfort could be made a part of the management decisions of every health authority. Aggregated data on patient satisfaction, along with measures of referrers' satisfaction and cost, would enable a health authority to make a judgement about the success or otherwise of a company and its suitability to continue with the contract.

The present system of supplying appliances is unwieldy. In consequence patients in need of appliances receive a poorer service than they might. A multidisciplinary approach to fitting and supply and a performance sensitive contract, sensitive to measures of patient and prescriber satisfaction, would improve the service.

ANDREW PROCTER

Lecturer in general practice, University of Manchester

Reference

1. Platt RS. Orthotic services: a need for change. *Br Med J* 1988; **297:** 6557.
2. Royal Association for Disability and Rehabilitation. *A future for the orthotic service. A report by a working party on the availability and supply of orthotic appliances.* London: Radar, 1982.
3. Jones D. Impact of advanced manufacturing technology on prosthetic and orthotic practice. *J Biomed Eng* 1988; **10:** 179-183.
4. Lord M, Jones D. Issues and themes in computer aided designs for external prosthetics and orthotics. *J Biomed Eng* 1988; **10:** 491-498.
5. White EG. Special footwear (everyday aids and appliances). *Br Med J* 1988; **296:** 6621.
6. Department of Health and Social Security. *Provision of medical and surgical appliances. Booklet MHM50.* London: HMSO, 1983.
7. Bainbridge S. *National Health surgical footwear.* London: HMSO, 1979.
8. Lord M, Foulston J. Surgical footwear: a survey of prescribing consultants. *Br Med J* 1989; **299:** 670.